## ANNUAL

## UNDERGRADUATE <br> CATALOG

# ILIINOIS S TATE NORMAL UNIVERSITY 

## B U L I E T I N


25. Fairchild Hall of
Special Education
26. Cooper Health Service
27. Metcalf School
28. Hayden Auditorium
29. University Farm 20. Hamilton Hall -A. Whitten Hal A. Colby Hall $\overline{\bar{o}}$
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$\overline{0}$
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3
3 Dunn Hall Barton Hall

12. Industrial Arts Annex
13. Cook Hall
14. Green House
15. Fell Hall
16. Home Management House
17. McCormick Gymnasium
18. Federal Buildings
19. Feeney Center

5-A. Financial Aid Office
. Physical Plant
University High School
Felmley Hall of Science
Felmley Hall of Science
North Hall
Schroeder Hall
Heating Plant
II. Industrial Arts Building

4SO3 ןD!पuąua)
I. Westhoff Theatre 1-A. Centennial West Textbook Service University Union Hovey Hall (Administration)

## ILLINOIS STATE

 NORMAL UNIVERSITY BULLETINONE HUNDRED FOURTH ANNUAL UNDERGRADUATE CATALOG

STATE OF ILLINOIS-Land of Lincoln OTTO F. KERNER, Governor
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# University Calendar 

Summer Sessions

June 18-August 10 Eight-Week Summer Session<br>August 13<br>Opening of Post Session

## First Semester

September $9 \quad$ Convocation for new students and their parents, 4 p.m.

September 10
September 10
September 11-13
September 14
September 24
October 8
October 19-20
November 21
November 26
December 19

Opening of first semester; Orientation Week activities begin at 9 a.m.; faculty meeting at 4 p.m.
Registration for late afternoon, evening, and Saturday classes, 6:30-8 p.m.
Registration according to a published schedule Classes begin
Last day for late registration and course changes
Illinois Education Association Central Division meeting Homecoming
Thanksgiving vacation begins, 12 noon
Thanksgiving vacation ends, 8 a.m.
Christmas vacation begins after scheduled classes

1963
January $3 \quad$ Christmas vacation ends, 8 a.m.
January 19-24
Final examinations for first semester
January 25
First semester closes

## Second Semester

January 28
January 28
January 29-31
February 1
February 11
April 6
April 16
May 30
June 1-6
June 7
June 8

Opening of second semester
Registration for late afternoon, evening, and Saturday classes, 6:30-8 p.m.
Registration according to a published schedule Classes begin
Last day for late registration and course changes
Spring vacation begins after scheduled classes
Spring vacation ends, 8 a.m.
Memorial Day holiday
Final examinations for second semester
Second semester ends
One-hundred-fourth annual commencement

## Summer Sessions

June 17-August 9
August 12

Eight-Week Summer Session
Opening of Post Session

## An Introduction to Illinois State Normal University

## TEACHING AS A PROFESSION

Our democratic society, founded upon the principles of free education for all, relies upon teaching as its cornerstone. Today, all other professions must build upon the processes of education. The teacher, working with students, then, is the central point in these educational processes.

The teacher must be a person devoted to serving others. He must be an individual who learns throughout his life. As he applies the sciences of education to practice, the teacher becomes a skilled artist at work.

Teachers are generally held in high esteem, for citizens of a community have come to recognize that the well-being of our nation depends upon the success of the superior teacher. The profession of teaching is constantly being upgraded, both as to the quality of persons who enter the field and the rewards received by those who teach.

## PURPOSES OF THE UNIVERSITY

Illinois State Normal University has for its primary purpose the preparation of professionally competent teachers, supervisors, administrators, and guidance and personnel workers for all educational levels from nursery school through college.

To attain its primary purpose the University strives constantly to achieve at increasingly higher levels the following aims:

To select and admit qualified and competent students for a program of teacher education
To maintain a program of selective retention of candidates for the teaching profession
To provide adequate teaching laboratories for observation, participation, and student teaching
To provide desirable conditions for student life and welfare
To provide a competent teaching and administrative staff to present and direct the program
To establish, study, and improve the program of teacher education for a democratic society by providing a well-balanced program of general education, specialization in teaching fields, and professional education

To provide opportunities for professional improvement of school personnel through in-service programs and through advanced academic and professional study
To encourage research in the principles of learning and teaching and in the several subject matter fields in order to promote teaching competence and scholarly achievement
To maintain functional relationships with elementary schools, secondary schools, and colleges in order that the teacher education program may be based on an understanding of the changing educational program and needs
To contribute to the educational program of the state by making available the resources of the University

## THE UNIVERSITY SETTING

PERSONNEL
The faculty of Illinois State Normal University includes over 430 persons holding a minimum of a master's degree. Of that number, approximately $50 \%$ have earned doctorates.

The student body consists of approximately 5,000 students during the regular school year. Geographically, students are from all parts of Illinois, a number of other states, and foreign countries.

## EXPENSES

Since a high percentage of funds necessary to provide superior quality of education is available through state appropriation, the cost to the student attending the University is moderate. While the average cost to the student for a full school year approximates $\$ 1,000$, about $60 \%$ of the full-time students hold state scholarships, reducing the over-all figure to about $\$ 800$.

## LOCATION

The University is located in Normal, which adjoins Bloomington. The two cities have a combined population of about 50,000 . Originally about a mile apart, the two communities have grown together and merged into one city, although each maintains its own municipal organization. Situated, then, in the geographical center of Illinois, the University is strategically placed for convenience and for future development.

The location of Illinois Wesleyan University in Bloomington, only a mile from the campus, affords various cultural and educational advantages. Cooperative arrangements between the two schools in educational and social areas are advantageous to students and faculty on both campuses.

Normal and Bloomington are on two railroad lines: the Gulf, Mobile, and Ohio and the New York Central. Several state and federal highways (routes $9,51,66$, and 150), which lead into the two cities, make the University
accessible to all parts of the state. The Ozark Airlines and interstate bus lines also provide service to the communities.

Lake Bloomington, the parks and golf courses in and around BloomingtonNormal, added to the facilities of the University campus, afford opportunities for outdoor sports and recreational activities for students and faculty.

The material advantages in the location of Illinois State Normal University are enhanced by unusual intellectual and esthetic aspects of the environment. The communities are literary and music centers. The University contributes to and benefits from these cultural elements in the civic life of the two cities.

## HISTORICAL SKETCH

Founded in 1857, the first teacher education institution in the Mississippi Valley, the second west of the Allegheny Mountains, and the tenth in the United States, the University celebrated its one hundredth year during the calendar year 1957. The founding of the University marked the beginning of state-supported higher education in Illinois.

The four-year college program leading to the bachelor's degree was inaugurated in 1907. In 1943 the fifth or graduate year, leading to the master's degree, was added. Beginning in 1962, graduate programs leading to doctor's degrees are also offered.

The University, in the 100 years of its existence, has been served by the following nine presidents:

Charles Hovey, 1857-1861; Richard Edwards, 1862-1876; Edwin C. Hewitt, 1876-1890; John W. Cook, 1890-1899; Arnold Tompkins, 18991900; David Felmley, 1900-1930; Harry A. Brown, 1930-1933; Raymond W. Fairchild, 1933-1954; Robert G. Bone, 1956- .

## ACCREDITATION

The University is accredited on both the bachelor's and master's levels by the North Central Association of Colleges and Secondary Schools and the National Council for Accreditation of Teacher Education. It holds institutional memberships in the American Council on Education and the American Association of Colleges for Teacher Education. Its women graduates are eligible for membership in the American Association of University Women.

## USE OF THIS CATALOG

It is important that the student read and keep his catalog for the year he enters the University. It will be needed throughout his college career and serves as the official guide for his academic and graduation requirements. It is also valuable as a reference book for the various phases of college life.

## The Campus

The University campus includes 71 acres with 39 buildings. The University is indebted to the vision of Jesse W. Fell for the artistic effect gained through the planting of trees soon after the school was established. Now over 100 years old, the trees, as well as the beauty of the general landscaping, characterize the foresight of the Philadelphia landscape gardener whom Mr. Fell brought to the campus in 1857. The building known as Old Main, razed in 1958, served as a landmark in central Illinois education for 99 years.

## ACADEMIC BUILDINGS

(These are placed in order of construction. The dates shown are dates of construction.)

North Hall (1892) is used for faculty offices and classes in Agriculture, Education, and English.

Cook Hall (1895) is used for Business Education classes, an auxiliary radio studio for campus broadcasting, and gymnasium for University High School.

Industrial Arts Building (1908) is used for Industrial Arts and Home Economics. Capen Auditorium, with a capacity of 1100 , is located in the building.

University High School (1912) is used as a four-year high school. This school serves as a laboratory for student teaching.

McCormick Gymnasium (1925) is occupied by the Department of Health and Physical Education for men and women.

Felmley Hall of Science (1930) is used for Biological and Physical Sciences.

Home Management Houses (1939) are two complete houses used by students in the Department of Home Economics.

Milner Library (1940) has four stack levels containing more than 200,000 volumes.

Hovey Hall (1950) provides offices for a number of administrative areas.
Fairchild Hall of Special Education (1951) contains provisions for the preparation of teachers of exceptional children. It also contains the psychological counseling services and the speech and hearing clinics for college students. One wing contains the Rachel Cooper Health Service.

Schroeder Hall (1957) contains 49 rooms for classes in Education, English, Foreign Languages, Geography, Mathematics, Psychology, and Social Sciences.

Metcalf Building (1957) is used for kindergarten, elementary grades one through six, and a junior high school of grades seven and eight. This serves as a laboratory for students preparing to teach in the elementary grades. It also houses the closed-circuit television studio for broadcasting to various areas of the campus.

Centennial Building (1958) is used for art, music, speech, and dramatic studies. It also serves as headquarters for the closed-circuit radio station.

## STUDENT HOUSING

The following buildings provide housing on campus for men, women, and married students:

Fell Hall (1918) for 260 upperclass women.
Barton Hall (1951) for 213 men.
Dunn Hall (1951) for 213 men.
Walker Hall (1955) for 410 men.
Cardinal Court (1959) for married students in 96 apartments.
Hamilton-Whitten Hall (1960) for 816 freshman women.
Atkin-Colby Hall (1962) for 816 upperclass women.

## AUXILIARY BUILDINGS AND GROUNDS

Central Heating Plant (1916) supplies heat and power for the campus.
Greenhouse (1938) is for growing plants and flowers for campus and for botany courses.

Industrial Arts Annex (1945) provides for machine-shop practice, welding, and sheet metal work.

University Union (1956) has facilities for student leisure time activities.
Physical Plant Office contains shops and offices for the campus maintenance staff.

McCormick Athletic Field consists of eight acres equipped for varsity and intramural sports.

University Farm includes 192 acres for cultivated crops and pasture.

## Admission, Orientation and Registration

## QUALIFICATIONS FOR ADMISSION

The teaching profession requires physical, mental, personal, and social characteristics which are comparable to the requirements of other important professions. It requires good health, intellectual ability, tact, common sense, mature judgment, adaptability, sense of humor, enthusiasm, and optimism. No single measure is used to determine the applicant's fitness for the profession. In addition to tests, the Committee on Admissions carefully considers each applicant to select the kind of student whose personal qualifications give indications of being most successful. Important factors in the selection process are scholastic record, recommendations of principals and counselors, standardized test scores, record of participation in activities, and personal interests and hobbies. After careful examination of these factors, the Committee on Admissions selects for admission the student whose qualifications show promise of being most successful.

## HIGH SCHOOL SUBJECTS RECOMMENDED FOR ADMISSION

Specific subjects are not required for admission, but it is wise for a student to select a strong academic program in high school. In addition to four years of English, a program including as much mathematics, science, foreign language, and history as possible is highly recommended. Further, a student should emphasize those high school subjects which are closely related to the program he plans to follow in college.

For more specific information a student should seek the advice of his high school counselor or write to the Office of Admissions and Records.

## ADVANCE PLACEMENT AND PROFICIENCY PROGRAMS

Examinations taken in the Advance Placement Program sponsored by the College Entrance Examination Board are recognized for college credit. In addition, the University administers proficiency examinations for college credit. For detailed information on these programs see p. 31.

## EARLY ADMISSION DECISION PLAN

An early admission decision plan is available for a student who ranks in the upper one-third of his high school class at the end of six semesters of
work. Participation in this plan assures the student of a place in the freshman class and an opportunity for residence hall reservation before the rush of seventh semester applications. A student interested in this plan should write the Office of Admissions and Records for more detailed information.

## ADMISSION PROCEDURES

Application for admission must be made by the student. It may be sent any time after the completion of seven semesters of high school work. An application form may be secured by writing the Office of Admissions and Records.

The beginning freshman or transfer student must fill out an application blank and send it to the high school from which he graduated. The high school will then complete its part and send the application directly to the Office of Admissions and Records. A transfer student must submit complete transcripts of all previous college and university work plus a recommendation from the dean of men or women of the last school attended.

As soon as the application blank and all necessary transcripts are received, it will be given consideration and the applicant will be notified of the action taken.

A student may be admitted at the beginning of either semester or the opening of a summer session. However, his application cannot be processed if received later than the Tuesday prior to the opening date of the semester or session for which he seeks entrance.

## CLASSIFICATIONS FOR ADMISSION

The University has five classifications for new students entering the Uni-versity-(a) beginning freshman student, (b) transfer student, (c) special student, (d) unclassified student, and (e) graduate student. The requirements for each are as follows:
A. Beginning freshman student

1. An applicant must be a graduate of a recognized or accredited high school.
2. An applicant should rank in the upper two-thirds of his graduating class. (An out-of-state applicant must rank in the upper one-half.)
3. An applicant who ranks in the lowest one-third of his graduating class may request an entrance examination. If this examination result is high enough, the Committee on Admission will consider the application.
4. An applicant must submit scores on the American College Testing Program (ACT) before being permitted to register. An applicant who ranks in the lower one-half of his high school class must submit these scores before he is given consideration.
5. An applicant accepted for admission must have a physical examination, including vaccination against smallpox, by his own physician during the 60 days preceding registration. Part of this examination must be a chest x-ray or skin test for tuberculosis done within a year. Hearing and speech tests will be given as a part of the registration procedure.

## B. Transfer student

1. A student transferring from accredited colleges and universities may be admitted on presentation of satisfactory scholastic records.
2. The total scholastic record at all colleges and universities attended must indicate an average of at least " C " and show withdrawal in good standing from the last school attended.
3. Each transfer student must present a favorable recommendation from the dean of men or women of the last college attended.
4. An applicant accepted for admission must have a physical examination, including vaccination against smallpox, by his own physician during the 60 days preceding registration. Part of this examination must be a chest x-ray or skin test for tuberculosis done within a year. Hearing and speech tests will be given as a part of the registration procedure.
5. Advanced standing credit will be granted for work successfully completed at accredited colleges and universities. A statement of advanced standing, showing how credits may be used for curricular requirements, will be sent to the student after his application has been approved for admission.
C. Special student
6. This classification is for a student not interested in teacher education and who does not plan to work toward a degree at this University. It is intended primarily for a local-area resident who may wish to take some courses for cultural value, to further personal interests, or for added preparation for his present vocation. It is intended also as a convenience to a local-area student attending college elsewhere who may wish to strengthen his program during the summer.
7. A special student may carry no more than six semester hours of work per semester, but may carry full-time work in the summer session. Registration in certain classes may be governed by the number of regular students enrolled.
8. Successful work in this classification does not necessarily assure the student of regular admission at some future date.
9. A student applying for this classification must present a statement of high school graduation, if no college work has been completed. If a student has registered in one or more colleges or universities, he must present a statement of good standing and classification from the last school attended.
D. Unclassified student
10. This classification is for a person presently engaged in the teaching profession or one who wishes to become certified to teach. It is intended to meet the needs of the individual who has had previous college work, but does not meet requirements for teacher certification. It is also intended to meet the needs of the individual engaged in the
teaching profession who may wish to strengthen academic areas to better qualify for his position.
11. An unclassified student may carry a full load of class work.
12. A student applying for this classification must meet requirements 1 and 2 listed for " $B$ " above (transfer student).

## E. Graduate student

Refer to graduate catalog.

## ORIENTATION DAYS

The purpose of orientation is to introduce new students to life on the campus. In 1962, these days are September 9-14 (Sunday-Friday). The program includes important lectures and discussions about college work, registration, and social events. Selected upper classmen and faculty members at the University will be with groups of new students to give important information.

All freshmen admitted to the University should report at 9 a.m. Monday, September 10, 1962.

## REGISTRATION

Registration days for the first semester are September 11-13, 1962. The second semester registration takes place on January 29-31, 1963. In both semesters students register according to a published schedule.

Students may not register after September 24, 1962, for the first semester and February 11, 1963, for the second semester.

## Costs and Living Accommodations

## FEES

Each student must pay his registration fees when he registers. Textbooks are not issued to a student and he is not admitted to classes until his fees are paid. These fees are subject to change, since action regarding them might be taken after publication of this catalog.

FEES FOR EACH SEMESTER-RESIDENTS OF ILLINOIS
*For students who register for more than six semester hours
Registration fee . . . . . . . . . . . . . . . . . . . . . . . . $\$ 60.00$
Activity fee . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 14.00
**Student Insurance . . . . . . . . . . . . . . . . . . . . . . . . . 7.50
University Union fee . . . . . . . . . . . . . . . . . . . . . . . . 11.00
Textbook Service fee. . . . . . . . . . . . . . . . . . . . . . . . . 5.00
$\$ 97.50$

For students who register for six semester hours or less

Registration fee per hour

\$ 9.00

Textbook Service fee 1.50

Activity, Student Insurance, and University Union fees are not charged.
Auditors (taking courses without credit)
Registration fee per hour
$\$ 9.00$
The maximum charge (for more than six hours) . . . 60.00

## OTHER FEES

The following are additional fees not applicable to each student each semester:

Graduation fee (Bachelor's degree) . . . . . . . . . . . . . $\$ 10.00$
Late registration fee charged after scheduled registration days3.00
Late examination fee ..... 1.00
Locker and towel fee for students in physical educa- tion courses ( $\$ 2$ refunded when padlock is re- turned) ..... 3.00
Change of program fee (charged beginning Septem- ber 14, 1962, for the first semester and February 1, 1963, for the second semester) ..... 1.00
Outdoor Education fee ..... 14.00

[^0]FEES FOR EACH SEMESTER-OUT-OF-STATE STUDENTS
Non-resident registration fee, for more than six
semester hours ........................... $\$ 145.00$
Non-resident registration fee, six semester hours or
less, per hour. . . . . . . . . . . . . . . . . . . . . . . 23.00
A student who is not a resident of Illinois pays the non-resident registration fee above. All other fees are the same for non-residents.

A student under 21 years of age is considered a non-resident if his parents are not legal residents of Illinois. A student over 21 years of age is considered a non-resident if he is not a legal resident of Illinois at the time of registration.

The Registrar is responsible for applying the out-of-state fees.

## ACTIVITY FEE

The activity fee covers school activities and publications such as athletics, music, lecture, dramatic, forensic events, class dues, the school paper, and the school annual.

## STUDENT HEALTH AND ACCIDENT INSURANCE

By action of the Teachers College Board, each student who enrolls at the University will be assessed a fee to cover a student hospital-medical-surgical policy. This policy will provide for all reasonable hospital expenses beginning with the first dollar and extending to a maximum of five hundred dollars, eighty per cent of any required surgeon's expense, and a major medical expense benefit of up to five thousand dollars for any one accident or period of sickness. The cost of this insurance per semester for 1961-1962 was $\$ 7.50$. The fee for 1962-1963 may be the same. However, the contract for furnishing this insurance is re-bid each year to provide coverage at the lowest possible cost to the student.

Coverage for a student's eligible dependents may be obtained at an additional cost.

Each student may exercise an option to continue this insurance during the summer months even though he may not be enrolled in the University.

## REFUND

The registration, student insurance, and textbook service fees are refunded if a student officially withdraws from the University not later than the dates specified below for each semester. University Union and activity fees are not refunded.

No refund will be made to a student who officially withdraws after September 24, 1962, for the first semester and after February 11, 1963, for the second semester.

## LIVING COSTS AND ACCOMMODATIONS

Inquiries regarding housing should be addressed to the Office of University Housing.

## ON CAMPUS

Current room and board rates in residence halls for men and women range from $\$ 365-\$ 380$ per semester. The University provides all room equipment and linens. Personal towels and blankets are provided by the student.

Married student housing facilities include 74 one-bedroom and 22 twobedroom unfurnished apartments. One-bedroom units rent for $\$ 55$ per month; two-bedroom units, $\$ 66$ per month.

The University reserves the right to increase current rates if necessary at the beginning of any semester or summer term with the understanding that adequate notice will be given.

## OFF CAMPUS

A student not living at home or with relatives is required to secure Uni-versity-approved housing in the Normal-Bloomington community. Lists of approved houses are maintained in the Office of University Housing. An undergraduate single student is not permitted to occupy an apartment unless this is approved in advance of occupancy by the Office of University Housing.

A rooming agreement defining the terms of rental is completed by each student and his householder when space is reserved in an approved off-campus home.

Rates for rooms range from $\$ 5-\$ 8$ per week. Meals, secured in the community, average $\$ 15$ per week. In some homes, cooking privileges are available.

## ESTIMATED TOTAL EXPENSE

The average cost for board, room, fees, and school supplies approximates $\$ 1,000$ for the school year of 36 weeks.

# Scholarships and Financial Aids 

STATE SCHOLARSHIPS


#### Abstract

The State Teachers Education Scholarships are available by legislative enactment to selected high school graduates who agree to take courses that will prepare them to teach. To be eligible, a student must rank in the upper one-half of his high school graduating class. A limited number of scholarships are available in each high school in Illinois. The scholarship may be used until he graduates, but not to exceed four years. A high school senior should ask his high school principal or counselor about this scholarship. This scholarship covers the Registration and Activity fees for each semester and summer session.


The State Teacher Education Scholarships for Teaching Handicapped Children are available by legislative enactment to selected high school graduates who agree to take courses that will prepare them to teach handicapped children. There are 250 of these scholarships available each year. To be eligible, a student must be in the upper one-half of his high school graduating class. The scholarship may be used until he graduates, but not to exceed four years. A high school senior should ask his principal or his counselor about this scholarship. This scholarship covers the Registration and Activity fees for each semester and summer session.

The State Scholarship Commission Program has made higher education available to a number of well-qualified high school graduates of Illinois. Examinations for these scholarships are given at designated places in the state. These scholarships are awarded to high school seniors on the basis of the examination and the student's high school record. The amount of the award is based on computed financial need. In cases where financial need does not exist, honorary awards are granted.

This scholarship may be used in the Illinois college or university of the student's choice. It is granted for one year. Each winner, after completing a satisfactory year in college, may renew his scholarship for three years or until he receives his bachelor's degree.

State Military Scholarships. During any semester or summer session for which a veteran is not receiving Federal benefits, he may avail himself of the provisions of the State Military Scholarship Law, provided he has an honorable discharge and was a resident of the State of Illinois at the time he entered military service. These scholarships, which cover Registration and Activity fees for four years at the state supported universities only, are administered through the Office of Admissions and Records.

## UNIVERSITY SCHOLARSHIPS

The University Financial Aids Committee administers some scholarships to worthy students in the fall and the spring of each academic year. To be eligible for this scholarship assistance, a student must have been in attendance at the University for one semester, have a 2.5 grade point average, demonstrate financial need, and must submit two faculty recommendations of probable success in his teaching field. Applications for these scholarships may be obtained in the Office of Student Financial Aids between October 1 and October 15 and February 10 and February 25. These scholarships are as follows:

The Illinois Congress of Parents and Teachers Scholarships (Any Curriculum). These scholarships are available to students studying in any curriculum and are awarded for one school year. They range in value from $\$ 50$ to $\$ 300$ depending on the financial need of the recipient. These scholarships are granted during the fall semester.

Illinois Congress of Parents and Teachers Scholarships (Special Education). These scholarships are available to students studying in the area of special education and are
awarded for a one year period of time. They range in value from $\$ 50$ to $\$ 300$ depending on the financial need of the recipient. These scholarships are granted during the fall semester.

The Gailey Awards are provided by the Watson Gailey Eye Foundation. There are two awards of $\$ 180$ each available to students pursuing work in sight saving.

The Raymond W. Fairchild Memorial Award. This scholarship is given to an outstanding athlete and student upon the recommendation of the Athletic Board. The grant is made available through contributions of the many friends of Dr. Fairchild, President of Illinois State Normal University from 1933 until 1955.

The Bloomington Woman's Club Award. This scholarship for $\$ 100$ is granted to an upper-class woman and awarded during the fall semester.

The Richard F. Feeney Scholarships. These awards are available to junior or senior women with at least a " $B$ " average. Funds for these awards are given to the University by Mr. and Mrs. Richard F. Feeney of Yorkville, Illinois.

The Junior Women's Club Awards. Several scholarships are available to students studying in the area of special education. The funds for these scholarships are given to the University by the Illinois Federation of Junior Women's Clubs.

The Chicago Woman's Ideal Club Scholarships. These scholarships for $\$ 180$ are available to sophomore women every third year. The last grants were given in 1960. To be eligible, a student must have at least a " $B$ " average. Recipients may re-apply for their junior and senior years.

The Council for the Handicapped Award. Several $\$ 1,000$ scholarships are available to junior students in certain areas of special education who are interested in teaching in the south suburban area of Chicago.

The Alumni Awards. These scholarships are given by the Illinois State Normal University Alumni Association. The number of awards granted and the amount of each may vary from year to year, depending upon the amount of money made available for student financial aid through the Foundation-Alumni Fund.

The 17the District Illinois Federation of Women's club Award. A scholarship of $\$ 100$ is available to a student from one of the five counties in the 17 th district-Ford, Livingston, Logan, McLean, and Woodford. In some years an additional \$100 award is available from each county.

## DEPARTMENTAL AND OTHER SCHOLARSHIPS

A few scholarships are awarded through certain University academic departments, campus organizations, and individual donors. These scholarships are not awarded by the University Student Financial Aids Committee and application should be made directly to the person or group as indicated. The necessary requirements for consideration are determined by the separate organizational committees. These scholarships are as follows:

The Art Scholarships, several of $\$ 100$ each, are available to entering freshmen in the Department of Art. They are awarded to talented high school seniors who need financial aid in beginning college careers. Applicants submit a portfolio of unframed original art work, a record of high school grades, and at least two letters of recommendation. One letter must be from an art teacher, principal, or guidance counselor. These scholarships are administered by the Art Department Scholarship Committee. Applications must be received by March 1 of the preceding school year.

The Industrial Arts Club Scholarship for one semester's fees is made available by the Industrial Arts Club to a junior or senior who has a first or second teaching field in the Department of Industrial Arts. He must be a member of the Club and have a grade point average of not less than 3.0 in his industrial arts courses and 2.0 in all other courses. This scholarship is administered by a joint committee of faculty and students elected by the Club. Application should be made to the Head of the Department of Industrial Arts.

The Jessie E. Rambo Award of $\$ 100$ is made to a junior in the Department of Home Economics each year near the end of the second semester. This award, which covers school fees for the senior year, is made on the basis of scholarship, personality, evidence of leadership, participation in campus activities, and probable success in teaching home economics. The award is made possible by the interest and generosity of Miss Jessie E. Rambo, former Director of
the Department of Home Economics of Illinois State Normal University. Students should apply to the Head of the Department of Home Economics.

Illinois Production Credit Association Scholarship. A scholarship in the amount of $\$ 150$ is awarded each year to a student majoring in the Department of Agriculture. The award is based on academic excellence, financial need, and participation in departmental and University activities. Application should be directed to the Office of Student Financial Aids or the Head of the Department of Agriculture.

The Children's Theatre Scholarship, for $\$ 100$, is offered by The Children's Theatre of Normal, Illinois. It is awarded to a student chosen on the basis of worthiness, activity in dramatics, and financial need. Students should apply to the Director of the Children's Theatre.

The Lathrop Memorial Award, for $\$ 140$, is available to a senior who wishes to continue as a graduate student in the Department of Geography. The selection is made by the staff of the Department of Geography on the basis of scholarship, good character, evidence of interest in teaching geography, and financial need. The award is a memorial to Dr. Harry 0. Lathrop for his outstanding contributions to the community, to the University, and to the field of geography. Application is made directly to the Head of the Department of Geography.

The Blackfriar Awards are presented each semester to four upperclass men. Applicants for these awards must have a scholastic average of " $C$ " or better. The recipients are chosen by a committee comprised of three faculty members and three student Blackfriar members. The recipients are in no way obligated to the Blackfriar organization. Application is made directly to the Blackfriar organization.

The Lowell Mason Award of $\$ 100$ is presented in the spring to a deserving sophomore or junior in the Department of Music. It is designed to aid a student in music who has actively participated in campus and music organizations. A committee composed of the Head of the Department of Music, Faculty Adviser of the Lowell Mason Club, and a school administrator, selects the recipient from application letters received in the spring. Application should be made to the Head of the Department of Music.

The Orchesis Scholarship of $\$ 100$ is available to a student enrolled in dance education as a second field. Applicants must have been active in Orchesis for one year, have a "B" average in dance courses, and have junior or senior standing when the scholarship is used. The Orchesis Scholarship Committee of the Department of Health and Physical Education for Women will administer the scholarship and select the recipient. Application should be made to Head of the Department of Health and Physical Education for Women.

The Erma Imboden Memorial Award is made each year to a student teacher in Metcalf School. The formation of this fund was sponsored by the Metcalf Parent-Teacher Association. The award is made possible through contributions given by the many friends of Miss Imboden, who for many years was a supervising teacher in the Metcalf School. Applications should be made directly to the President of the Metcalf P.T.A. Association.

The Stella V. Henderson Memorial Award is made available annually to a graduate student through the interest of Kappa Delta Epsilon, Kappa Delta Pi (both honorary education societies), and friends of Dr. Henderson, an alumna and faculty member of the University. Dr. Henderson's particular contribution was in the field of educational philosophy. Students should contact the faculty advisor of Kappa Delta Pi or the Dean of the University for further information.

The Faculty Women's Club Scholarship, for $\$ 100$, is in honor of the men and women of Illinois State Normal University who served in World War II. It is awarded to an outstanding junior and is based on scholarship, character, and leadership qualities. Application should be made directly to the President of the Faculty Women's Club.

The Golden Jubilee Scholarships of $\$ 250$ each are awarded to high school seniors who plan to prepare for teaching. These are made available by the Illinois Congress of Parents and Teachers. They are granted to persons with high scholastic standing, good health and character, leadership ability, and a willingness to teach. One scholarship is given each of the 33 P.T.A. districts in Illinois and may be renewed each year for students who qualify. District P.T.A. committees select the recipients. High school seniors should ask their principals about these scholarships. Applications must be filed before March 15.

The Alice L. Ebel Scholarship Fund. The purpose of this scholarship is to encourage undergraduate and graduate students to participate actively in political organizations. The selection will be made by a committee composed of the sponsors of the University political organizations and the campus representative of the Illinois Citizenship Clearing House. Applications should be made to Miss Alice L. Ebel.

## LOAN FUNDS

The Student Loan Fund is available to any University student, undergraduate or graduate. From this fund a student may borrow at a low rate of interest a sum not to exceed $\$ 150$. Information concerning this fund may be obtained from the Office of Student Financial Aids. Various philanthropic organizations and individuals have contributed to this loan fund over a period of years. The majority of the Loan funds have been made available through the efforts of the following organizations:

The Annie Louise Keller Loan Fund. A fund in the amount of $\$ 150$ was raised by students and faculty as a memorial to Miss Keller, a former student at Illinois State Normal University, who gave her life in protecting the lives of all of her pupils in a rural school in Greene County during a tornado on April 17, 1927.

The Illinors Congress of Parents and Teachers Fund. The various State Parent and Teacher Associations have contributed over $\$ 2,500$ to the University Loan Fund to be used by needy students.

The Gladys Watts Memorial Fund. This fund was established in memorial of Gladys Watts, a former student at Illinois State Normal University.

The C. C. Byerly Memorial Fund. This fund was contributed to the University by the Illinois Bookmen's Association.

The Faculty Women's Club Fund. This fund is available to women students who meet the standards required by the Club. No more than $\$ 200$ may be borrowed by each student. The Office of the Dean of Women will furnish information about loans from this fund.

## THE FEDERAL STUDENT LOAN PROGRAM

The University provides financial assistance through participation in the National Defense Student Loan Program under Title II of the National Defense Education Act of 1958, Public Law 85-864. This program, nationwide in scope, provides loans to students under easy terms with special scholarship provisions for student borrowers who later enter public elementary and secondary teaching, and public school administrative careers. To be eligible for participation in this program, a beginning freshman must have ranked in the upper-half of his high school graduating class. Transfer students must be admitted to the University in good standing to be eligible. Students who have completed work at this University must have a grade point standing of 2.0 ( C average). The amount of all scholarship loans is based on computed financial need. Further information concerning this program may be obtained from the Office of Student Financial Aids.

## PART-TIME EMPLOYMENT

Many and varied job opportunities are available to students who wish to earn a part of their University expenses while enrolled in school. Part-time employees may earn from $\$ 5$ to $\$ 20$ a week depending on the student's academic ability and financial need. Further information about the University Student Employment Program may be obtained from the Office of Student Financial Aids.

## Student Life

## CULTURAL OPPORTUNITIES

The University feels a distinct responsibility in providing experiences which will add to the cultural growth of its students. In addition to its museum displays and the Carnegie Room for listening to classic recordings in Milner Library, provision is made for display of visiting art collections and student art works in the Centennial Building, Milner Library art gallery, and in the University Union.

The Entertainment Board is designed to provide for enhancing this area of student life. The Board, composed of seven students and eight faculty members, brings to the campus each year the finest musicians, dancers, lecturers, and stage personalities. It also sponsors the Arts Theatre, featuring outstanding American and foreign film classics.

## STUDENT ORGANIZATIONS AND ACTIVITIES

In its social functions the University encourages proper social usage and seeks to teach informally propriety and dignity within a democratic framework. Developed chiefly by students with faculty cooperation, the social and other interests of the student body find their outlet in many diversified activities and organizations. Participation in such activities is recognized and encouraged as a valuable part of a complete teacher-education program.

Since the founding of Illinois State Normal University, the formation of social fraternities and sororities of even a local nature has not entered the student life program. In the belief that it can function to better advantage and that more complete participation in the life of the University is possible without such organizations, the University maintains that it is not desirable to approve their establishment. This policy does not have any bearing upon the furtherance of the activities of scholastic and departmental honor societies.

## STUDENT SENATE

The Student Senate is a representative body made up of students elected from each of the major departments of the University. The President, VicePresident, Secretary, and Treasurer of the Student Senate are elected by the student body. The functions of the Student Senate are to formulate plans for improving the conditions and character of student life and the formulation of recommendations to the administration. The Senate has the responsibility of recommending students for appointment to several student-faculty boards, and for sponsoring all-school elections.

## UNIVERSITY UNION BOARD

The University Union Board is composed of eleven students, two faculty representatives, the Director of Alumni Relations, the Director of the University Union, and the President of the University. It functions as an advisory board in matters of policy related to the University Union and plans a recreational program for student participation.

## university club

Every undergraduate man becomes a member of the University Club upon registration at the University. The club pledges itself to promote wholesome type of good fellowship among the men of the campus, to encourage men to come to the University, and to support worthy enterprises of the University, especially those in which men are interested. The organization sponsors a constructive program of social events on the campus.

## women's league

Every undergraduate woman student is a member of the Women's League. Through its various committees, the Women's League makes it possible for women of the student body to function as a unified group. Everything that touches the life of women of the school is of interest to the League. Every woman may be allied with some committee for the promotion of its special activities in the interest of the entire group.

## CLASS ORGANIZATIONS

Each of the four undergraduate classes is organized by popular election with a president, vice-president, secretary, and treasurer. Social and other class activities are directed by advisory boards under the leadership of elected officers. Traditional events include a Sophomore Cotillion and a Junior-Senior Prom.

## RESIDENT ORGANIZATIONS

All University residence halls are organized with elected student leaders and governing boards for the promotion of student self-government through legislative, judicial, and social activities. A women's House Presidents Board is organized under the auspices of the Women's League to give off-campus student women's houses voice in student affairs.

## STUDENT EDUCATION ASSOCLATION

The Student Education Association at this University, known as the McMurry Chapter, is a professional organization and a junior member of the National Education Association and the Illinois Education Association. It is a general professional organization between high school F.T.A. (Future Teachers of America) and full membership in parent professional organization. The
organization strives to train youth in professional and civic affairs and to promote and encourage the teaching profession. Members of the local chapter help in the organization of high school F.T.A.'s in Illinois. This group acts as a service group to the University helping in conference registration, guiding persons who visit the campus, and other similar services. Membership is open to all students.

## NATIONAL ASSOCIATION FOR THE ADVANCEMENT OF COLORED PEOPLE

The National Association for the Advancement of Colored People was organized on our campus in 1955. It is an affiliate of a national organization whose main principle is one of improving human relations among all racial and religious groups.

## RELIGIOUS ORGANIZATIONS

In the belief that a stable philosophy of life is essential to effective living and the work of its students, the University has encouraged both interdenominational and denominational student religious activities. Its Young Women's Christian Association, organized in 1872, was the first student Y.W.C.A. in the world.

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Interdenominational organizations include:
    Inter-Varsity Christian Fellowship
    Young Women's Christian Association
Denominational organizations on campus include:
    Apostolic Christian Bible Class
    B'nai B'rith Hillel Organization
    Canterbury Club, for Episcopal students
    Channing-Murray Foundation for Unitarian students
    Christian Science Organization
    Evangelical United Brethren Fellowship
    Lutheran Student Organization, for all synods
    Newman Club, for Catholic students
    Southern Baptist Student Union
Religious foundations sponsored by Normal churches:
    Baptist Youth Center
    Disciples Student Fellowship (Christian)
    United Campus Christian Foundation (Presbyterian,
        Evangelical and Reformed, Congregational)
    Wesley Foundation (Methodist)
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Local churches of several denominations have developed young people's activities centered around the college students of their denomination on the campus.

DEPARTMENTAL AND CAMPUS CLUBS AND HONORARY SOCIETIES
Most departments in the University sponsor departmental organizations for their students. For students who earn outstanding college records, many departments sponsor honorary societies. Some clubs have activities of interest to students from various departments.

Departmental and campus clubs include:

| Art Club | Mathematics Club |
| :--- | :--- |
| Business Education Club | Men's Physical Education Club |
| Cloverleaf Collegiates 4-H | Naturalist Club |
| $\quad$ Club | Physical Science Club |
| Elementary Education Club | Russian Club |
| English Club | Science Club |
| Forensic Union | Social Sciences Club |
| French Club | Spanish Club |
| German Club | Special Education Club |
| Home Economics Club | Women's Physical Education Club |
| Industrial Arts Club | Young Democrats |
| Latin Club | Young Republicans |
| Lowell Mason Club (music) |  |
| Maize Grange (agriculture, |  |
| home economics, and <br> others) |  |

Honorary Societies include
Alpha Beta Alpha - Library Science
Alpha Phi Gamma - Journalism
Alpha Phi Omega - Scouting
Alpha Tau Alpha - Agriculture
Gamma Theta Upsilon - Geography
Iota Lambda Sigma - Industrial Arts
Kappa Delta Epsilon - Education (for women)
Kappa Delta Pi - Education
Kappa Mu Epsilon - Mathematics
Kappa Omicron Phi - Home Economics
Pi Gamma Mu - Social Sciences
Pi Kappa Delta - Forensics
Pi Omega Pi - Business Education
Sigma Tau Delta - English
Theta Alpha Phi - Dramatics

## RECREATION AND SPORTS

A balanced program of athletics is prominent in the activity program of the University. With first emphasis on good sportsmanship, University teams have compiled good records in football, cross country, basketball, wrestling, swimming, gymnastics, track, golf, tennis, and baseball. Junior varsity schedules
are arranged in football and basketball. "Redbird" teams play a full schedule of games with the other six members of the Interstate Intercollegiate Athletic Conference (Illinois and Michigan) and with a number of other Illinois and mid-western rivals.

In addition to its extensive intercollegiate program for men, the University carries out a broad intramural program for both men and women. A wellorganized schedule of competition and adequate equipment attract large numbers of students to these programs. McCormick Gymnasium is the site for indoor intramural and intercollegiate activity, the pool in the Thomas Metcalf Building is available for swimming, and McCormick Field is the outdoor location for fall and spring activities.

Intramurals for women are sponsored by the Women's Recreation Association, a local chapter of a national organization. The WRA promotes friendly competition in team and individual sports among the various housing units and in many other ways encourages cooperative recreational activities for the physical, mental, and social development of all college women. For co-recreation, the club sponsors playnights and a square dance group, Shufflin' Shoes, a swim club and an outing club.

Other student organizations with recreational and sports interest include:
Coryphee's - pom pom dance group
Gamma Phi - gymnastics
"N" Club - sports lettermen
Orchesis - modern dance

## MUSIC ACTIVITIES

Music is an important and vital experience in life and is a necessary part of the teacher's equipment. Illinois State Normal University, cognizant of this fact, provides music organizations which will enrich the student's musical background and prepare the student to teach similar groups.

Concerts are presented by some of the musical organizations on the campus and in communities in this area. The Lowell Mason Club presents an operetta each year on the campus.

Music organizations include:

Circus Band
Concert Band
Marching Band
Men's Glee Club
Treble Chorus

University Choir
University Male Chorus
University Symphony Orchestra
University Women's Chorus
Varsity Pep Band

Membership in these organizations is open to all University students who can qualify.

The Laboratory Orchestra and Laboratory Band are maintained for all students who are not sufficiently advanced to qualify for membership in the Orchestra and Band, and serve as laboratory hours for certain music courses.

## SPEECH AND DRAMATIC ACTIVITIES

In addition to course work offered in the Department of Speech, emphasis is placed upon oratory, extempore speaking, and debating for both men and women. The University belongs to the Illinois Intercollegiate Oratorical Association and the Illinois Intercollegiate Debate League. Student orators compete annually for the medal offered to the best speaker in the public speaking division of the Edwards Medal Contest.

As part of the work of interpretative reading classes, an opportunity is offered students to participate in reading programs. Various community organizations make frequent requests for student programs. For those interested in reading poetry, selection for participation in the annual Edwards Medal Contest is held in high esteem. A medal is presented to the student chosen as the best poetry reader.

Extraclass dramatic activity at Illinois State Normal University is under the auspices of the University Theater. Three major plays are presented each year, with participation open to all students of the University. A fourth major production is presented yearly in affiliation with the Children's Theater of Normal. University students are encouraged to work with the children in this production. Students may qualify for membership in Jesters, local dramatic organization, through extraclass dramatic activity and may accumulate points which qualify them for membership in Theta Alpha Phi, national honorary society.

The Blackfriar organization, composed of men students, produces an original dramatic show each year.

## RADIO-TELEVISION FACILITIES

The University has two radio studios, one in Cook Hall which is connected by telephone line to station WJBC, the ABC outlet for Bloomington-Normal, and one in the Centennial Building. A five-minute daily campus news program and a weekly interview program are broadcast to the community from Cook Hall. The Centennial Building studio is utilized for radio courses and is the center for a recently established closed-circuit dormitory radio service.

A closed-circuit television studio providing service to eight campus buildings is located in the Metcalf Building. This studio is used for multiple section teaching, educational observations, and student training in educational television.

Although only a limited number of students can be given employment as announcers, technicians, and cameramen, the closed-circuit radio service is a student-operated organization with voluntary opportunities available for students interested in all phases of radio broadcasting.

## STUDENT PUBLICATIONS

The yearbook at the University is The Index and is published annually by a student staff.

The Vidette, a semi-weekly newspaper, is published by students in an attempt to present important campus news and to reflect student life.

Both student publications have received national recognition for high quality. Ample quarters, serving as laboratories for journalism, are provided for the staffs in the University Union. The editor and business manager are chosen by the Student Publications Committee. These, along with a faculty sponsor, appoint a staff of assisting editors. Those who are active on The Index and Vidette staffs are eligible for membership in Alpha Phi Gamma, honorary journalistic society.

Campus Cues is a handbook of useful information published annually for the benefit of new students by the University Club and Women's League.

## UNIVERSITY CODE OF STUDENT LIFE

The University assumes that all of its students will accept the responsibility of maintaining high standards of personal behavior. It further assumes that persons who are unsympathetic with such standards or unwilling to maintain them will not apply for admission. The student is held responsible for meeting these standards in the interest of his own personal development, the reputation and traditions of this University, and the welfare of the teaching profession.

Any student who fails to meet these requirements may be asked to withdraw immediately from the University.

Regulations and policies governing student conduct, activities, and services are in the Code of Student Life, a handbook for all students. Students will be held responsible for familiarity with the University Code.

## Student Services

## PERSONNEL SERVICES

The term "Personnel Services" refers to the various services at the University which help students make the desired adjustment to their immediate and future needs. Various offices assist, but the offices of the student deans, residence halls, health, and psychological services are particularly designed to counsel with students.

In order to help new students make early and satisfactory adjustments to the academic and social life of the University, student leaders and faculty members serve as counselors. The student leaders and faculty members are carefully chosen from the departments in which the new student plans to specialize. Each new student will have several meetings, both individually and in small groups with these counselors, during the orientation days of the first week of school. Through a series of weekly meetings during the first semester the freshmen are given additional opportunities to effect an adequate adjustment to university life.

In the underclass women's residence halls, upperclass women, who have achieved outstanding success in their college careers, are invited as honor residents to assist residence counselors with the personnel services offered. Selected graduate students assist the residents of both men's and women's residence halls.

The Women's League has a campus sister program whereby each freshman woman has an upperclass sister to help her with campus life.

## HEALTH SERVICE

The Rachel Cooper Health Service is maintained by and is an integral part of Illinois State Normal University. Because good health is essential for success as a student or teacher, the Health Service is concerned directly with the promotion of good physical and mental health among University students.

The Rachel Cooper Health Service, located in Fairchild Hall, includes an infirmary of 24 beds. In addition to services which are educational or preventive in nature, the University physician is available for consultation during office hours regarding any health problems a student may have.

## PSYCHOLOGICAL COUNSELING SERVICE

The Psychological Counseling Service, located in Fairchild Hall, is available to University students who need help to avoid, correct, or alleviate
difficulties of an academic or personal nature. In addition to providing counseling for students in the University, the Psychological Counseling Service provides training experiences for graduate students in the School PsychologistCounselor curriculum.

## HEARING LABORATORY

Service for students with impaired hearing is provided through the Hearing Laboratory in Fairchild Hall. The service includes hearing tests, lip reading, auditory training, and advice concerning hearing aids. Prospective speech correctionists and teachers of the deaf and hard of hearing participate in school hearing surveys, analysis of hearing deficiencies, training, and hearing aid selection procedures.

## READING LABORATORY

The Reading Laboratory, located in Fairchild Hall, is available to analyze and diagnose reading difficulties of students and to recommend remedial measures. This Laboratory also is used to prepare prospective teachers to help learners who are retarded in oral and written forms of communication.

## COLLEGE READING-STUDY CENTER

The College Reading-Study Center is open to all college students free of charge. A student may enter at any time.

Attention is given to developing speed in reading, increasing comprehension, skimming, vocabulary study, spelling, and building a more effective and less time-consuming program of study.

A student who wishes to enroll should make arrangements in Schroeder Hall 406.

## SPEECH CLINIC

Students having speech deviations may receive counsel and/or therapy concerning these problems at the Speech Clinic which is located in Fairchild Hall. A student may be referred by the Department of Speech as a result of freshman speech checks or by a faculty member. The Speech Clinic serves primarily as a laboratory for student teachers in speech correction.

## VETERANS SERVICES

The Assistant Dean of Men is Director of Veterans Services. His office advises veterans on the provisions established by the federal government. In order that the proper forms may be executed, the veteran should write to the Director of Veterans Services before he registers.

If federal government financial aid is not available to the veteran, he may use the State Military Scholarship for his University fees. The veteran
must have been a resident of Illinois when he entered military service. Evidence of such service must be presented to the office of Admissions and Records.

A veteran may receive University credit in hygiene and physical education if he has been in military service for at least one year. He must present a copy of his discharge form to the Office of Admissions and Records.

The University does not grant college credit for the completion of the college level General Educational Development examinations.

Certain dependents of deceased war veterans are also entitled to educational benefits from the Veterans Administration. If a student believes he or she may be entitled to such benefits, he should write to the Director of Veterans' Services soon after he is approved for admission to the University.

## Academic Procedures and Regulations

## GRADING SYSTEM

The grades with their value in grade points are as follows:

| A | (Passing) | 4 grade points per semester hour |
| :--- | :--- | :--- |
| B | (Passing) | 3 grade points per semester hour |
| C | (Passing) | 2 grade points per semester hour |
| D | (Passing) | 1 grade point per semester hour |
| F,WF | (Failing) | 0 grade points per semester hour |
| I | (Incomplete) | No grade points per semester hour |
| WX, WP (Withdrawal) | No grade points per semester hour |  |

$\mathrm{A}, \mathrm{B}, \mathrm{C}$, or D will be recorded for work which has been given a passing grade.

F will be given to: (1) Students who withdraw from a course at any time without official permission; (2) Students who are in a course all semester but who fail to earn a passing mark.

## GRADE POINT AVERAGE

In order to be eligible for a student teaching assignment and for graduation, a student must have a minimum grade point average of 2.0 ( C ) in all courses taken at Illinois State Normal University. I, WX, and WP are not counted.

Failures which have not been cleared by repetition of the course are considered in the total number of semester hours taken in computing the grade point average. The following case illustrates the counting of grade points:

| Course | Grade | Sem. Hrs. Enrolled | Sem. Hrs. Earned | Sem. Hrs. Counted for Grade Point | Grade <br> Points <br> Earned |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Intro. to Political Science 105 | D | 3 | 3 | 3 | 3 |
| General Psychology 111 | C | 3 | 3 | 3 | 6 |
| Fundamentals of Speech 110 | A | 3 | 3 | 3 | 12 |
| Applied Music 131 | I | 1 | 0 | 0 | 0 |
| Elective | WP | 1 | 0 | 0 | 0 |
| Elective | B | 3 | 3 | 3 | 9 |
| Elective | F | 2 | 0 | 2 | 0 |
| Beginning Swimming 127 | WF | 1 | 0 | 1 | 0 |
|  |  | - | - | - | - |
|  |  | 17 | 12 | 15 | 30 |

The grade point average is computed by dividing grade points earned by semester hours counted. For the case above, the grade point average is 2.0 .

## SCHOLASTIC HONORS

UNIVERSITY SCHOLASTIC HONORS
University scholastic honors are awarded each year at a Scholastic Honors Day Convocation in the spring to the $3 \%$ of the undergraduate student body having the highest grade point average. This applies to students who have earned at least 12 semester hours during each of the two semesters. Freshmen are eligible for these honors on their work of the first semester. Sophomore, junior, and senior honors are based on two semesters and intervening summer sessions, if the student attended during the summer.

## DEAN'S LIST

This list, prepared each semester, is composed of students who earned grades of B or better. These students are given honorable mention at the Scholastic Honors Day Convocation in spring.

## HONORS AT COMMENCEMENT

Students who have an accumulated grade-point average of 3.80 to 4.00 are graduated with High Honors; those with an average of 3.65 to 3.79 are graduated with Honors. These students wear a shoulder loop as a part of their academic dress, and their names appear as honor students on the commencement program.

## SPECIAL OPPORTUNITIES FOR CREDIT AND ADVANCED PLACEMENT

Qualified students may receive college credit, or exemption from some course requirements, on the basis of satisfactory performance on proficiency examinations. A student may secure specific information on proficiency examinations by inquiring at the Office of the Dean of the Faculty.

In addition to proficiency examinations administered by the University, examinations taken in the Advanced Placement Program sponsored by the College Entrance Examination Board, are also recognized. College credit will be given to those students who have passed one or more advanced placement examinations with grades of 5 (highest honors) or 4 (honors). As indicated below, credit will be allowed in courses most nearly equivalent to the material covered in the Advanced Placement Program.

## Advanced Placement

Examination Score Required Credit or Exemption Allowed
American History 5 or 4 History of the United States 135 and 136; total, 6 sem. hrs.

| Advanced Placement Examination | Score Required | Credit or Exemption Allowed |
| :---: | :---: | :---: |
| Biology | 5 or 4 | Introduction to Biological Science 100, General Zoology 190, and General Botany 121; total, 9 sem. hrs. |
|  | 3 or 2 | Exemption, without credit, from Introduction to Biological Science 100, General Zoology 190, and General Botany 121. |
| Chemistry | 5 or 4 | General Chemistry 140 or Elementary Inorganic Chemistry 112 or General Chemistry 146; 5 sem. hrs. |
|  | 3 | Consult Head of Department of Physical Sciences for possible exemption. |
| English | 5 | Language and Composition 101 and 102; total, 6 sem. hrs. |
|  | 4 | Language and Composition 101; 3 sem. hrs. |
|  | 3 | Exemption, without credit, from Language and Composition 101. |
| European History | 5 or 4 | History of Civilization and Culture 124, 3 sem. hrs.; or Modern World Civilization 128, 4 sem. hrs. |
|  | 3 | Exemption, without credit, from History of Civilization and Culture 124 or Modern World Civilization 128. |
| Foreign Languages (French, German, Latin, Spanish) | 5 or 4 | Credit for 115 and 116 in the appropriate language. Maximum credit, 8 sem. hrs. |
| Mathematics | 5 | Analytic Geometry 112, Calculus 115 and 116; total, 12 sem. hrs. |
|  | 4 | Analytic Geometry 112 and Calculus 115; total, 8 sem. hrs. |
|  | 3 | Exemption, without credit, from Analytic Geometry 112. |
| Physics | 5 or 4 | Elementary Physics 157 or General Physics 170 or 180; 5 sem. hrs. |
|  | 3 | Consult Head of Department of Physical Sciences for possible exemption. |

A student who has taken Advanced Placement Program examinations should request that his scores be sent to the Office of the Dean of the Faculty.

The total credit allowed through proficiency examinations and the Advanced Placement Program may not exceed sixteen semester hours.

## SCHOLASTIC REQUIREMENTS

To remain in good standing scholastically, students must meet the following requirements:

1. On the cumulative record, students who have taken 1-29 semester hours, inclusive, may have nine fewer grade points than twice the number of hours taken; 30-44 hours, inclusive, six fewer points; 45-59 hours inclusive, three fewer points. Students who have taken 60 or more semester hours must have twice as many grade points as semester hours, or an average of 2.0 (C). I, WP, and WX are not counted. WF counts the same as F.
2. On the record of each semester, full-time students must earn a minimum of eight semester hours and 16 grade points. Students taking fewer than eight semester hours during a regular semester must earn passing grades in all courses.
3. For the eight-week summer session, the student must earn passing grades in three semester hours and nine grade points if six or more semester hours are taken.

For less than six semester hours in the eight-week session, the post session, and extension courses, the requirement is a passing grade.

## SCHOLASTIC PROBATION

Students who fail to meet the above requirements are placed on probation for the succeeding semester or summer session. Students who are placed on probation a second time are not permitted to continue their studies at Illinois State Normal University until reinstated by the Dean of the Faculty who serves as chairman of the Reinstatement Committee. After the second probation, students are ordinarily expected to wait one year before requesting that reinstatement be considered by the committee.

## MIDSEMESTER REPORTS

At the end of nine weeks, faculty members report to the Dean of the Faculty all students who are doing unsatisfactory work. These reports serve as a guide to counsel students regarding problems in their courses. Through this guidance, the student is aided in improving his academic work.

## REPETITION OF COURSES

If a student receives an $\mathbf{F}$ (failure) in a course, he should repeat it as soon as possible if it is required for graduation.

When a failure is repeated, the last grade only is counted for the grade point average.

A student may wish to repeat a course in which he has received a passing grade. In this case, the highest grade only will be counted for the grade point average.

The Dean of the Faculty must give permission to repeat a course more than once.

Courses must be repeated at this University when repeating a failure or to raise the grade point average.

## WITHDRAWALS

WX, WP, or WF will be given to students who have been given official permission to withdraw from a course. WX is given if the student withdraws before the quality of the work can be determined; WP, if the student is passing at the time of withdrawal; and WF, if failing.

Official permission to withdraw from a course or from the University is given only by the Dean of the Faculty. Employed students who wish to make changes in their programs and all students who wish to withdraw from the University should first confer with the Dean of Women or the Dean of Men. In case of accident or illness, which would make withdrawal in the regular way impossible, a letter sent to the Dean of the Faculty explaining the situation will be sufficient, provided textbooks and the library card are returned.

If a student withdraws from a class or from the University during the semester without arranging officially with the Dean of the Faculty, his withdrawal will be considered unofficial after three weeks of absence, or by the close of the semester (whichever is the shorter period of time), unless a justifiable reason for extension of time is accepted by the Dean of the Faculty.

## INCOMPLETES

An I (incomplete) will be given to a student who is doing passing work but who, because of illness or other justifiable reasons, finds it impossible to complete the work by the end of the semester or session. Unless the student has been in class to within three weeks of the close of the semester or one week of the close of the summer session, and the quality of his work is such that he can complete it through special assignments and examinations, incompletes are not given. Incompletes should be cleared during the next semester or session a student is in school and must be cleared before one year has elapsed.

## STUDENT PROGRAM OF COURSES

Heads of departments and directors of divisions are the academic counselors, and they help students in planning their programs of courses.

Freshmen plan their programs of courses during orientation days, before registration. A definite time is set for this procedure.

Students in attendance plan their programs during the previous semester.
A student who is employed secures from the Student Financial Aids Office, before planning his program, a class schedule permit.

## SCHEDULE OF CLASSES

The schedule of classes, prepared by the Dean of the Faculty, is available during the previous semester, so that the student can plan his program of courses in advance.

In both semesters, the school day consists of 50 -minute periods from 8:00 a.m. to 4:50 p.m. Monday through Friday, and from 8:00 a.m. to 12 noon on Saturday. Each class period begins on the hour. Day classes usually meet as many times as the semester hours offered for the course. Courses with laboratory work meet for double periods for the laboratory part.

Beginning at 4:00 p.m., there are also late afternoon and evening classes meeting for only one weekly session, lengthened to the proper time. There are also Saturday morning classes in one session. These classes are for day students as well as teachers.

A full-time student is in class approximately 17 periods per week.

## CLASS LOAD

A student may carry a maximum of 17 hours each semester. A full-time student usually carries from 15 to 17 hours. Permission from the Dean of the Faculty must be obtained by a student who desires to carry more than 17 hours. The granting of this permission will depend on the student's scholastic record. A freshman may not carry over 17 hours during his first semester.

A person who holds a full-time position may not take more than six semester hours of work per semester.

A student must have the permission of the Dean of the Faculty to take any work, including extension or correspondence study, at another college or university at the same time as he is taking work here.

## CLASS ATTENDANCE

The policy of the University is to assume that students will attend classes regularly. The cause for any absence, whether illness or other cause, for even a single class, should be reported to the Dean of Women or the Dean of Men. In case of justifiable absence, opportunity to make up work missed may be granted by the instructor at his discretion. Students who have been absent because of a contagious disease must report to the University Physician before returning to class. The state laws regarding quarantine and exclusion are strictly followed.

It is evident that this plan places responsibility squarely upon the student. Such attendance regulations are designed to develop growth on the part of the student, assuming that success in his class studies is his major concern in college.

## CLASSIFICATION OF STUDENTS

Students in the curricula leading to the Bachelor of Science in Education degree are classified as freshmen, sophomores, juniors and seniors. A student must have completed 30 semester hours to be classified as a sophomore; 60, as a junior; and 90 , as a senior.

An unclassified student is in teacher education, but not working toward a bachelor's degree at the University.

A special student is not in teacher education. A special student may carry no more than six semester hours during the first or second semester, but may carry a full program of courses during the summer session.

## AUDITOR

A student may register as auditor in a class or classes if facilities are available. An auditor does not participate in the activity of the class. He merely listens. To register, an auditor obtains a card from the office of the Registrar which must be signed by the instructor. The auditor fee is shown in the section on costs. Students who are registered for more than six hours for credit may audit courses free of charge.

## TRANSFER TO ANOTHER CURRICULUM

If a student wishes to transfer to another curriculum or change his first field, he should report to the office of the Registrar for this procedure.

## COURSE CHANGES

These are made in the office of the Dean of the Faculty. No changes are permitted after September 24, 1962, for the first semester and after February 11, 1963, for the second semester. However, a student may withdraw from a course at any time during the semester up to the time of final examinations. A fee of $\$ 1$ is charged for each course change not required by the University after September 13, 1962, for the first semester and January 31, 1963, for the second semester.

## Professional Laboratory Experiences


#### Abstract

The program of professional laboratory experiences at Illinois State Normal University includes experiences such as observation, participation, studies of individual pupils, a limited amount of research, as well as student teaching both on and off the campus. Although professional laboratory experiences are, for the most part, undergraduate activities, some are provided at the graduate level.


## EXPERIENCES PRIOR TO AND FOLLOWING STUDENT TEACHING

Professional laboratory experiences in which the students engage prior to student teaching are an integral part of specific college courses. Some laboratory experiences are provided in the two campus laboratory schools: Metcalf Elementary School and University High School.

The Metcalf Elementary School includes kindergartens for four-year olds and five-year olds as well as two rooms of each grade, one through eight. Special instruction is also provided for children who are physically handicapped, mentally retarded, visually impaired, deaf and hard of hearing, and for children in need of speech correction.

Opportunity to work with youth of high school age is provided in the University High School. It has an enrollment of about 400 students and is accredited by the North Central Association of Colleges and Secondary Schools. The program of studies at University High School is broad. It provides opportunities for youth who have many and varied interests and needs. The program of co-curricular activities provides opportunity for individual growth and development as well as for social needs.

These laboratory schools give all college students opportunity to work with both teachers and pupils from kindergarten through high school, to engage in observation and participation, to make studies of individual pupils, and to do a limited amount of research.

Professional laboratory experiences following student teaching include activities in which the student desires to do additional study or experiences which are recommended by his college instructors or supervising teacher for the student's growth and understanding.

## STUDENT TEACHING

## REQUIREMENT FOR STUDENT TEACHING

One semester of work in residence or its equivalent is required as a prerequisite for student teaching, except in Special Education for which eight semester hours of residence credit is required.

Student teaching is an integral part of the sequence of work in professional education. The student becomes eligible for student teaching when the courses which precede it in sequence have been satisfactorily completed.

A student must have earned 90 semester hours of credit before an assignment in student teaching will be made.

To be eligible for student teaching a student must have earned at least twice as many grade points as semester hours in work taken at Illinois State Normal University.

A student on probation is not eligible for student teaching.
A student in the high school or the junior high school curriculum must have a $C$ average in courses in the fields in which he will do student teaching.

A student in the high school curriculum will be expected to do student teaching in his first and second teaching fields unless he has a comprehensive teaching field.

To be assigned to student teaching, a student must secure a statement from the University Health Service indicating that he is physically qualified to meet the requirements of a regularly certified teacher.

A student will be required to be in good mental health to be admitted to student teaching and to complete his student teaching assignment.

Before a student is assigned to student teaching, he must have met all speech usage requirements as determined by the Department of Speech. The student may be required to demonstrate satisfactory proficiency in other areas specified by the University.

The minimum requirement in student teaching is 36 clock hours for each semester hour of credit. The number of semester hours of student teaching required for graduation varies according to the curriculum.

A student enrolled in the curriculum in Special Education will teach both in a regular elementary classroom and in a special class in the field of his area of specialization. A minimum of 200 clock hours in actual clinical work is required in the area of Speech Correction.

Requirements concerning student teaching apply to summer student teaching as well as to student teaching engaged in during the regular school year. The requirements for student teaching apply also to that done off the campus.

## ASSIGNMENT TO STUDENT TEACHING

The University maintains programs of student teaching both on the campus and off the campus.

Student teaching on the campus is provided in the campus laboratory schools during the regular school year and summer session.

Student teaching off the campus is provided in schools located away from the campus and selected by the University.

Student teachers are assigned only to classrooms which have regularly employed full-time teachers. Assignments are not made to a school in which
the student teacher is concurrently employed as a teacher. A student may not earn academic credit and financial income for a single teaching experience.

The usual plan of off-campus student teaching is for each student to be assigned to a school in a community for a period of nine weeks during which he does full-time student teaching. The student becomes a member of the school staff and of the community in which he is working and living. Each student participates in community and co-curricular activities as well as teaching experiences.

Student teaching assignments are made by the heads of departments and directors of divisions in cooperation with the Director of Professional Laboratory Experiences who is responsible for procedures involved in student teaching.

A student who is pregnant will be assigned to student teaching only if it is believed that the birth will take place at least two months after the completion of the student teaching assignment. Assignments to student teaching of students who are pregnant will be made by the Director of Professional Laboratory Experiences following recommendation of the University physician.

All arrangements for student teaching for any given semester or session are to be made at least six weeks (excluding vacations) before the end of the previous semester or session.

Students who have had experience and who have shown a high standard of achievement in previous teaching may be given special assignments in remedial instruction or other specialized phases of teaching which will broaden their preparation. The Director of Professional Laboratory Experiences, upon recommendation of the supervising teacher and head of department or director of division involved, may require additional work in student teaching. Student teaching must be continued until competency has been attained.

Student teaching assignments are to begin and end according to the University calendar.

## Graduation

## DEGREES AWARDED

After January 1, 1963, a student who meets the requirements for graduation may receive one of the following degrees: Bachelor of Science in Education, Bachelor of Arts, or Bachelor of Science. The requirements are summarized below:

1. To qualify for the degree of Bachelor of Science in Education, a student must meet the requirements in general education, professional education, and teaching-field preparation.
2. To qualify for the degree of Bachelor of Arts, a student must meet the requirements in general education, professional education, and teachingfield preparation. A candidate for this degree must have earned 32 semester hours in the humanities and the social sciences. In addition, he must have completed three semesters of study, or its equivalent, in a foreign language at the college level.
3. To qualify for the degree of Bachelor of Science, a student must meet the requirements in general education, professional education, and teaching-field preparation.

When a student applies for graduation, he must indicate which degree he seeks. Only the Bachelor of Science in Education degree is available to students who graduate in June and August, 1962.

## COMMENCEMENT DATES

Commencement is held twice each year, in June at the end of the second semester, and in August at the end of the eight-week summer session.

Presence at commencement is required of all candidates for graduation. Permission for absence must be received from the Dean of the Undergraduate School if the student cannot be present.

Students who complete work for graduation after the close of the eightweek summer session receive their degrees at the following June commencement.

## APPLICATION FOR GRADUATION

The registration instructions for each semester and the eight-week summer session contain information on the date on which students apply for graduation. At the time application is made, the graduation fee of $\$ 10$ must be paid.

A student must apply for graduation no later than six weeks preceding his graduation date.

## REQUIREMENTS FOR GRADUATION

Meeting graduation requirements is the student's own responsibility, and he should continually check his program of courses against graduation requirements.

For students in continuous attendance during each academic year, the requirements for graduation will be those specified in the catalog for the year the student enters the University. If attendance is not continuous any new requirements must be met, but credits earned in meeting requirements of an old program will apply in a revised program if the student continues in the curriculum originally chosen. In all instances, the University may adjust graduation requirements to insure that each graduate meets course requirements for an Illinois Teaching Certificate.

During the early part of the student's senior year, he is informed by the Registrar of his final degree requirements.

Each student should apply for graduation on the date specified on the registration instructions. The $\$ 10$ graduation fee must be paid when application is made, unless this fee is covered by a State Scholarship.

Specific course requirements are shown in the sections Curricula of the University and Departments and Course Offerings.

The following are requirements which apply to all students:

1. The semester hours must be a minimum of 128 . Some curricula or combinations of fields require more.
2. The senior college hours (courses numbered 200 or more) must total 43.
3. The grade point average must be 2.0 (C).
4. Each I (incomplete) must be removed six weeks before the June commencement and two weeks before the August commencement.
5. The residence requirement is as follows: one-half of the last two years and the last course must be completed with this University (campus and extension). At least 32 semester hours (of all work for graduation) must be completed on campus.
6. Each student must pass the examination on the constitutions of the United States and State of Illinois, and proper use of the American flag. The examination must be taken at the University. This examination is given by the University about six times during the calendar year. The registration instructions for each semester and eight-week summer session show dates of this examination for that semester or session. This examination should be taken before the student's last semester.
7. A student may not present for graduation more than 32 semester hours by extension and correspondence, of which no more than 16 semester hours may be by correspondence.

## After Graduation

## TEACHERS' CERTIFICATES

Each student who graduates from the University with a bachelor's degree is eligible for one or more teaching certificates in the State of Illinois.

Upon the completion of all requirements for his degree, the student receives from the Office of Admissions and Records entitlement cards for his Illinois Teaching Certificate.

Information concerning the requirements for certificates to teach in Illinois may be obtained from the Bureau of Appointments and the Office of Admissions and Records. County superintendents of schools are also able to give information about requirements for teaching certificates.

## BUREAU OF APPOINTMENTS

The Bureau of Appointments is maintained by the University for the purpose of aiding employing officials in the schools of the state to find qualified teachers for their openings.

In addition, the Bureau renders service to students and alumni of ISNU by offering them information concerning availability of positions; giving them all instruction possible relative to effective ways of applying for positions and maintaining good professional ethics; and giving them other information that will be helpful in securing positions and being successful teachers.

## ALUMNI RELATIONS

Through the Alumni Office, the Alumni Association, and 33 ISNU Clubs, former students maintain contacts with one another and the University. The Alumni Office keeps records of over 20,000 alumni on file and also serves as headquarters for alumni when they are on the campus. The News Letter, a publication of the Publicity Office, goes to all graduates three times a year.

The Alumni Quarterly is published four times each year and serves as the organ of the Alumni Association. The Association plans Founders' Day, class reunions, the annual alumni luncheon at commencement, campus student activities, many Homecoming events, and administers the ISNU FoundationAlumni Fund.

ISNU Clubs have been organized in St. Petersburg, Florida; Cleveland, Ohio; Southern California; Northern California; Washington-Oregon; Phoenix, Arizona; and 27 counties in Illinois.

## Related Services

## FIELD SERVICES

Since Illinois State Normal University is state-supported and committed to the improvement of public education within the state, it provides facilities and the services of staff members to meet various off-campus professional needs of schools and their communities. The use of the existing services at Illinois State Normal University is directed through various offices. Summaries of these services and specific directions for securing the use of them are in a University bulletin entitled Field Services which may be secured by writing to the Division of University Extension and Field services. Information concerning speakers may be secured by contacting this same office.

## EXTENSION COURSES

Extension courses, workshops, and clinics are designed to help administrators and teachers to grow professionally and to improve the services that they can render to children under their supervision, to the schools they represent, and to the communities where they are working. Both graduate and undergraduate courses are offered. Extension courses and workshops are available each semester and during two three-week summer sessions. These courses are listed in this Undergraduate Catalog and the Graduate Catalog. With few exceptions, courses give the same amount of credit by extension as is given for the courses when they are taught on campus. Most classes will require 16 sessions. The length of each session may vary with the amount of credit. The registration fee is $\$ 9$ per semester hour of credit. An Extension Bulletin is published before each session to give information concerning the particular centers and courses available. Inquiries concerning extension work should be sent to the Division of University Extension and Field Services. Correspondence courses are not offered by this school.

## LATE AFTERNOON, EVENING, AND SATURDAY CLASSES

The University offers a number of courses on the campus during the late afternoons and evenings, and on Saturdays during the regular school year. These courses may be used to apply toward the Bachelor's or Master's degree. These courses give residence credit, since they are offered on campus.

## THE SUMMER SESSIONS

The University provides a summer session of eight weeks, a three-week post session, short courses, and workshops. About one-half of the attendance
is composed of teachers in service who wish to continue their education during the summers. Regular courses with the regular University staff of instructors are offered. A student may plan to take the same type of work as that secured during the regular year. Student teaching facilities are available for those who qualify for such work.

The number of hours which may be earned by undergraduate students in the eight-week summer session is nine semester hours of credit, the equivalent of the credit for one-half of a semester. Graduate students are limited to eight semester hours.

The Summer Session Bulletin issued each year may be secured by writing to the Director of the Summer Session. This bulletin shows courses; cost of attendance; special attractions during the summer including conferences, workshops, exhibits; and other types of information of interest to those wishing to combine a pleasant summer with profitable work.

## THE GRADUATE SCHOOL

A complete catalog of information on the Graduate School is available and may be obtained by writing to the Director of Admissions. This bulletin contains information on admission procedure, fees, assistantships and scholarships, curricula, courses and graduation requirements.

Work in the Graduate School is available during the regular school year and during summer sessions.

Graduate courses are numbered in the 300's and 400's. This Undergraduate Catalog contains courses numbered in the 300 's, since they may be taken by juniors and seniors and applied toward the Bachelor of Science in Education degree.

## UNIVERSITY PUBLICATIONS

The Alumni Quarterly, published by the University Press, has been the official bulletin of the Alumni Association since 1912. This 32 page magazine is distributed to members of the Alumni Association.

The Illinois State Normal University News Letter is a six-page folder distributed free of cost to all graduates of the University three times each year.

Campus Towers is a four-page news bulletin for parents of University students. Published soon after the opening of school and at the close of each semester, it is distributed free of cost.

The Illinois State Normal University Bulletin is published six times each year. Four issues are the Undergraduate Catalog, the Summer Session Bulletin, Summer Short Sessions Bulletin and the Graduate Catalog. The other two issues are used, as occasion demands, for special activities of the University.

Teacher Education is published four times each year as a field service journal of the University and is made available to administrators, teachers, and others interested in the various levels of education.

## THE UNIVERSITY FOUNDATION

The Illinois State Normal University Foundation is a non-profit corporation, organized under the laws of the state of Illinois. Its purposes are wholly charitable and educational. The objectives are to assist in developing and increasing the facilities of Illinois State Normal University in order that they may make possible broader educational opportunities for students, alumni, and citizens of Illinois. The foundation is also to render service by encouraging gifts of property, works of art, historical papers, documents, museum specimens, other material having educational, artistic, or historical value, and money for scholarships and other University activities.

Other details of the purposes and operation of the Foundation are available through its constitution and by-laws, copies of which may be obtained from the President of the University.

## The Curricula of the University

In order to qualify for a bachelor's degree, a student must complete curricular requirements in three areas: General Education, Professional Education, and Teaching Fields. These are outlined below as A, B, and C.

Although general education receives most emphasis during the first two years, a student may begin some study in his teaching fields and in professional education during the first year. As a student progresses through his four-year program, more emphasis is placed on specialized preparation in the teaching fields and professional education.

## A. GENERAL EDUCATION

Each student must complete 52 semester hours in courses designated as general education. The 52 semester hours are distributed in five groups as follows:

Group I
Humanities and Communications
15 sem. hrs.
English 101, Language and Composition, 3 sem. hrs.
English 102, Language and Composition, 3 sem. hrs.
English 103, Literature and Composition, 2 sem. hrs. or English 104, Introduction to Literature, 3 sem. hrs.

A student should register in English each semester until the requirement has been met.

A student may be eligible, on the basis of a satisfactory score on the English placement examination, to elect a year of foreign language in place of English 101.
Speech, 3 sem. hrs.
$\left.\begin{array}{l}\begin{array}{l}\text { Art } \\ \text { Music } \\ \text { Foreign Languages }\end{array}\end{array}\right\} 4$ sem. hrs. in one or more of these areas

Group II
Humanities and Social Sciences
13 sem. hrs.
European history, 4 sem. hrs.
United States history, 3 sem. hrs.
Economics
Political Science
Sociology and Anthropology
$\} 6$ sem. hrs. in two of these three areas

Group III
Natural Sciences
9 sem. hrs.
Biological Science
$\left.\begin{array}{l}\text { Beography (Earth Science) } \\ \text { Physical Science }\end{array}\right\} 9$ sem. hrs. in one or more of these three areas
R

Group IV
Personal and Social Development
9 sem. hrs.
General Psychology 111, 3 sem. hrs.
Physical Education, 4 sem. hrs.
For this requirement, the student chooses from courses numbered 101 through 149 in the Department of Health and Physical Education.
Hygiene, 2 sem. hrs.

Group V
Electives
6 sem. hrs.
These may be chosen from the general education courses in any department, but no more than 3 sem . hrs. of these may be in the student's first or second field.

Each student must complete a minimum of four semester hours in mathematics unless he meets one of the following bases for exemption:

1. Completion of three units of high school mathematics in addition to a general mathematics course.
2. Achievement of a satisfactory score on the mathematics section of the American College Test.
3. Demonstration of proficiency by an examination administered by the University.

Courses which have been approved for use in meeting the 52 -hour general education requirements are identified in a list preceding the course descriptions in the departments offering general education courses.

A student preparing for high school teaching meets general education requirements in areas represented by his teaching fields. For example, a student with a first field in art need not take the four semester hours or Art, Music, or Foreign Language specified in Group I.

## B. PROFESSIONAL EDUCATION

Each student must complete one of the following sequences according to his curriculum. These courses are in the Department of Education and Psychology.

| Elementary School $\begin{gathered}\text { Sem. } \\ \text { Hrs. }\end{gathered}$ | Junior High School $\begin{gathered}\text { Sem. } \\ \text { Hrs. }\end{gathered}$ |
| :---: | :---: |
| Intro. to Elementary Teaching 101.. 3 | Child Growth \& Development 102... 3 |
| Child Growth \& Development 102. . . 3 | Reading Methods 103.............. 3 |
| Reading Methods 103............. 3 | Psychology of Adolescence 201..... 2 |
| Elementary Curriculum 202, 203, 204. 4 | American Public Education 215..... 3 |
| Problems of the Teacher 205....... 3 | Upper Grade-Junior-High Education |
| Intro. to Philosophy of Education 2313 | 204 . . . . . . . . . . . . . . . . . . . . . 4 |
| Student Teaching 399............. 8 | Intro. to Philosophy of Education 231. 3 <br> Student Teaching 399................ 8 |
| Total required . . . . . . . . . . . . . . 27 | Education Elective . . . . . . . . . . . . 2 |
|  | Total required . . . . . . . . . . . . . . 28 |
| $\begin{array}{lc}\text { High School } & \text { Sem. } \\ \text { Hrs. }\end{array}$ | $\begin{array}{lc} & \text { Sem. } \\ \text { Special Education } & \text { Hrs. }\end{array}$ |
| Educational Psychology 115........ 3 | Intro. to Special Education 145. . . . 3 |
| American Public Education 215..... 3 | Child Growth \& Development 102... 3 |
| Secondary Education 216.......... 4 | Reading Methods 103. . . . . . . . . . . 3 |
| Intro. to Philosophy of Education 231. 3 | *Elementary Curriculum 202, 203, |
| Student Teaching 399............. . 10 | 204 . . . . . . . . . . . . . . . . . . . . . . 4 |
| Education or Psychology Elective... 1 | Mental Hygiene 232.............. 3 |
| Total required .... $\overline{24}$ | Psychological Measurement 331..... 3 |
| Total required . . . . . . . . . . . . . . . . 24 | Psych. of Exceptional Children 346. . 2 |
|  | Problems of the Teacher 205....... 3 |
|  | Intro. to Philosophy of Education 231. 3 |
|  | Student Teaching 399............. . 8 |
|  | Total required . . . . . . . . . . . . . . . 35 |

[^1]
## C. TEACHING-FIELD PREPARATION

In addition to general education and professional education, a student is required to complete requirements for one of the following fields:

Elementary School Teaching, see pages 49-50.<br>Junior High School Teaching, see pages 50-51.<br>High School Teaching, see pages 51-52.<br>Special Education-one of seven areas, see pages 53-55.

ELEMENTARY SCHOOL TEACHING
Sem.
Special Requirements ..... Hrs.
Art 101 and 102, Art Activities for Elementary Schools. ..... 5
English 170, Literature for the Elementary School ..... 3
English 271 or 272, Literature for Lower or Upper Grades ..... 3
Geography 135, Geography of Peoples of the World. ..... 3
Health and Physical Education 222 or 223, Physical Education for Lower or Upper Grades ..... 2
Mathematics 101, Basic Concepts of Arithmetic ..... 3
Mathematics 201, Arithmetic for the Elementary Grades ..... 2
Music Elective ..... 2
Music 275 or 276, Music Education for the Lower or Upper Grades. ..... 3
Natural Sciences (Biological, Geography, or Physical) Electives ..... 5
Speech Elective ..... 3
Electives ..... 15
Total ..... 49
General Requirements and Recommendations

Each student is required to take at least one course in each of the following areas: Biological Science, Geography (Earth Science), Physical Science. At least one of these courses must be a laboratory course.

In order to meet certification requirements, each student must plan to have at least 12 semester hours in "Fine and Applied Arts," defined as "art, music, and not more than 6 semester hours of literature."

In addition to the requirements noted above, students planning to teach in grades 7 and 8 shall select at least 2 semester hours of Mathematics, and students planning to teach within grades 5 and 8 shall select at least 3 semester hours in Social Science and 3 hours in Geography.

It is recommended that students planning to teach in middle and upper grades use available elective hours in the following areas: English, Social Science, Geography, Mathematics, and Natural Science (Biological Science, Geography, Physical Science).

It is recommended that students planning to teach in kindergarten or primary grades use available elective hours in Social Science, Art, Music, Speech, and Advanced Reading Methods.

A student may use electives in Art, Foreign Languages (French, Spanish), Health and Physical Education, Library, Music, and Speech Arts if he wishes to prepare for the position of consultant or resource person in these areas.

## Electives

The following courses are suggestions for electives in the Elementary School Teaching Field:

Art 100, 105, 116, 118, 124, 126, 127, 140, 150, 201, 202, 204, 261, 370
Biological Sciences-Biology 201, 202, 203; Botany 122, 123; Health 248
Education and Psychology-Education 207, 240, 241, 299, 301; Psychology 201, 231, 331
English 145, 165, 219, 234, 243, 247, 251, 273, 286
Foreign Languages-French 111, 112, 115, 116, 203, and student teaching in French if preparing as a resource person in French; Spanish 111, 112, 115, 116, 203, and student teaching in Spanish if preparing as a resource person in Spanish.
Geography 125, 130, 215, 220, 230, 240, 250, 255, 260
Health and Physical Education 160, 162, 172, 174, 180, 280, 361
Library 212, 216, 252, 253, 254
Mathematics 107, 108, 110, 112, 202, 220
Music 102, 103, 104, 121, 122, 126, 135, 170, 171, 201, 208, 235, 377
Physical Sciences 225, 325
Social Sciences-Economics 171, 272; History (World) 123, 220, 223, 224; History (United States) 135, 136, 231, 232, 234, 236, 238, 292, 295; Political Science 150, 151, 252, 255; Sociology—Anthropology 166, 181, 261, 262, 264, 282, 381
Speech 123, 131, 132, 141, 212, 232, 233, 242, 261, 280

## JUNIOR HIGH SCHOOL TEACHING

## Specific Requirements

Sem.
Hrs.
English electives ..... 9
Geography electives ..... 6
Health and Physical Education 224, Physical Education for Junior High Schools ..... 2
Mathematics electives ..... 7
Natural Sciences electives. ..... 7
Social Sciences elective ..... 3
*Electives ..... 14
Total ..... 48

One of the Natural Science courses must be a laboratory course.
In order to meet graduation and certification requirements, each student must plan to have at least 12 semester hours in "Fine and Applied Arts," defined as "art, music and not more than 6 semester hours of literature."

## Electives

The following courses are suggested for electives in the Junior High School Teaching Field:

Art 101, 102, 105, 113, 116, 118, 124, 126, 127, 140, 201, 202, 204, 211, 370
Biological Sciences-Biology 201, 202, 203; Botany 122, 123; Zoology 191, 192

[^2]Education and Psychology-Education 207, 240, 241, 299, 301; Psychology 231, 331
English 110, 130, 213, 214, 215, 216, 217, 218, 219, 220, 222, 224, 243, 247, 251, 272, 273, 296
Geography 125, 130, 215, 220, 230, 240, 250, 255, 260
Health and Physical Education 120, 121, 150, 162, 180, 242, 341, 361
Library 170, 212, 213, 216, 252, 253
Mathematics 107, 108, 110, 112, 202, 220
Music 121, 122, 126, 127, 170, 276
Physical Sciences 111, 112, 325
Social Sciences-Economics 171; History (World) 123, 220, 223, 224, 229; History (United States) 135, 136, 232, 236, 238, 239, 292, Political Science 150, 151, 252, 253, 254, 255; Sociology-Anthropology 181, 261, 262, 263, 264, 282, 381
Speech 123, 141, 232, 242, 324

## HIGH SCHOOL TEACHING

Each student must complete a first (or major) in one department and a second (or minor) field in another department. However, some departments, as indicated below, offer comprehensive fields in addition to first and second fields. A second (or minor) field is not required when the student completes a comprehensive field.

The specific requirements for first, comprehensive, and second fields in each department are shown in the section on Departments and Course Offerings, before each department's listing of courses.

Following are the areas in which first, comprehensive, and second fields are offered:

## *Agriculture

*Art
Biological Sciences (Botany and Zoology)
*Business Education
English (including Journalism)
French (see Foreign Languages)
**General Science (see Biological Sciences, Geography, or Physical Sciences Departments)
Geography (including Geology)
German (see Foreign Languages)
Health and Physical Education
For Men
*For Women (including Dance Education)
*Home Economics
*Industrial Arts (including Safety and Driver Education)
Latin (see Foreign Languages)
**Library
Mathematics
*Music

[^3]*Physical Sciences (Chemistry and Physics)<br>**Psychology (see Education and Psychology Department) Russian<br>*Social Sciences (Economics, History, Political Science, Sociology and Anthropology)<br>Spanish (see Foreign Languages)<br>Speech

[^4]
## SPECIAL EDUCATION

The total hours required for graduation depend on the area chosen and the choice of courses. At least 128 semester hours must be completed, and the student may choose electives to meet this requirement if required courses do not fulfill it.
Sem.
Deaf and Hard of Hearing ..... Hrs.
Art 101, Art Activities for Elementary Schools ..... 2
Art 207, Art for Exceptional Children ..... 3
Biological Sciences-Zoology 181 and 182, Functional Anatomy ..... 6
Education 353, Education of the Deaf. ..... 2
Education 354, Speech for the Deaf. ..... 3
Education 355, Language and School Subjects for the Deaf ..... 3
Education 399, Student Teaching. ..... 5
English 170 or Library 214 or Library 216 ..... 3
Geography Elective ..... 3
Health and Physical Education 222, 223, or 224 ..... 2
Mathematics Electives ..... 5
Music 371, Music for the Exceptional Child ..... 3
Speech 215, Speech Correction. ..... 3
Speech 311, Phonetics ..... 3
Speech 350, Audiometry and Hearing Aid Selection. ..... 2
Speech 351, Lip Reading and Auditory Training ..... 2
Speech 352, Clinical Practice in Lip Reading and Auditory Training ..... 2
Speech 356, Conservation of Hearing ..... 2
Speech 372, Anatomy and Physiology of Hearing and of Speech. ..... 2
Maladjusted
Sem. ..... Hrs.
Art 101, Art Activities for Elementary Schools ..... 2
Art 207, Art for Exceptional Children ..... 3
Art or Music Elective ..... 2
Biological Sciences-Zoology 181, Functional Anatomy ..... 3
Biological Sciences Elective. ..... 2
Education 301, Laboratory Reading Methods ..... 3
Psychology 201, Psychology of Adolescence. ..... 2
Psychology 345, Casework in Behavior Problems ..... 2
English 170 or Library 214 or Library 216 ..... 3
Health and Physical Education 222, 223, or 224 ..... 2
Mathematics Electives ..... 5
Social Sciences-Sociology 261, The Community ..... 3
Social Sciences-Sociology 262, The Family ..... 3
Social Sciences-Sociology 263, Social Disorganization ..... 2
Speech 212, Speech Correction for Classroom Teachers ..... 3
Sem.
Mentally Retarded ..... Hrs.
Art 101, Art Activities for Elementary Schools ..... 2
Art 207, Art for Exceptional Children. ..... 3
Biological Sciences-Zoology 181 and 182, Functional Anatomy ..... 6
Education 301, Laboratory Reading Methods ..... 3
Education 346, Education for the Mentally Retarded ..... 2
Psychology 348, Mental Retardation ..... 3
English 170 or Library 214 or Library 216 ..... 3
Geography Elective ..... 3
Health and Physical Education 222, 223, or 224 ..... 2
Home Economics 106, Nutrition ..... 2
Mathematics Electives ..... 5
Music 371, Music for the Exceptional Child ..... 3
Speech 212, Speech Correction for Classroom Teachers ..... 3
Physically Handicapped
Sem. ..... Hrs.
Art 101, Art Activities for Elementary Schools ..... 2
Art 207, Art for Exceptional Children. ..... 3
Biological Sciences-Zoology 181 and 182, Functional Anatomy ..... 6
Biological Sciences-Zoology 381, Applied Human Anatomy ..... 3
Biological Sciences-Zoology 385, Physical Defects-Survey and Rehabilitation ..... 3
Education 301, Laboratory Reading Methods ..... 3
Education 349, Education of the Physically Handicapped ..... 2
English 170 or Library 214 or Library 216 ..... 3
Geography Electives ..... 5
Health and Physical Education 222, 223, or 224 ..... 2
Home Economics 106, Nutrition. ..... 2
Mathematics Electives ..... 5
Music 371, Music for the Exceptional Child ..... 3
Speech 212, Speech Correction for Classroom Teachers ..... 3

## Speech Correction

In this area, a student will be required to take more than 128 semester hours in order to qualify for the elementary teaching certificate. The student should consult the Director of the Division of Special Education for suggestions for these requirements.
Sem.
Hrs.
Art 101, Art Activities for Elementary Schools ..... 2
Biological Sciences-Zoology 181 and 182, Functional Anatomy ..... 6
Education 301, Laboratory Reading Methods ..... 3
Speech 112, Public Speaking ..... 3
Speech 114, Voice and Articulation. ..... 3
Speech 215, Speech Correction ..... 3
Speech 311, Phonetics ..... 3
Speech 318, Clinical Procedures in Speech Correction ..... 3
Speech 319, Speech Pathology ..... 5
Speech 350, Audiometry and Hearing Aid Selection. ..... 2
Speech 351, Lip Reading and Auditory Training. ..... 2
Speech 356, Conservation of Hearing. ..... 2
Speech 371, Speech Science ..... 2
Speech 372, Anatomy and Physiology of Hearing and of Speech ..... 2
Sem.
Visually Impaired Hrs.
Art 101, Art Activities for Elementary Schools ..... 2
Art 207, Art for Exceptional Children ..... 3
Biological Sciences-Zoology 181 and 182, Functional Anatomy ..... 6
Biological Sciences-Zoology 382, The Eye-A Laboratory and Clinical Study ..... 2
Business Education 112, Typewriting or Elective ..... 2
Education 301, Laboratory Reading Methods ..... 3
Education 350, Education of the Partially Seeing ..... 2
English 170 or Library 214 or Library 216 ..... 3
Geography Electives ..... 5
Health and Physical Education 222, 223, or 224 ..... 2
Home Economics 106, Nutrition ..... 2
Mathematics Electives ..... 5
Music 371, Music for the Exceptional Child ..... 3
Speech 212, Speech Correction for Classroom Teachers ..... 3
Visually Impaired (Blind)
Sem. ..... Hrs.
Art 101, Art Activities for Elementary Schools ..... 2
Art 207, Art for Exceptional Children ..... 3
Biological Sciences-Zoology 181 and 182, Functional Anatomy ..... 6
Biological Sciences-Zoology 382, The Eye-A Laboratory and Clinical Study ..... 2
Business Education 112, Typewriting or Elective ..... 2
Education 301, Laboratory Reading Methods ..... 3
Education 351, Education of the Blind ..... 3
Education 352, Braille Reading and Writing ..... 2
English 170 or Library 214 or Library 216 ..... 3
Geography Elective ..... 3
Health and Physical Education 222, 223, or 224 ..... 2
Home Economics 106, Nutrition ..... 2
Mathematics Electives ..... 5
Music 371, Music for the Exceptional Child ..... 3
Speech 212, Speech Correction for Classroom Teachers ..... 3

## Departments and Course Offerings

## SEMESTER PLAN

The University operates on the semester plan. The value of courses is, therefore, in terms of semester hours. A semester hour is assigned for a fiftyminute period of lecture or recitation for a semester of 18 weeks. For laboratory, two fifty-minute periods are necessary for a semester hour.

## COURSE NUMBERING SYSTEM

100-199 Junior college (lower division) courses for freshmen and sophomores.

200-299 Senior college (upper division) courses for juniors and seniors. A student must have 60 semester hours to take courses at this level.

300-399 Advanced undergraduate and graduate courses. Courses at this level are open to juniors, seniors, and graduate students.

400-499 Graduate courses. For further information concerning graduate courses, consult the annual Graduate Catalog.

This Undergraduate Catalog contains courses numbered 100-399. The Graduate Catalog contains courses numbered 300-499.

## TEACHING STAFF

The members of the teaching staff of each department are listed in the departmental sections which follow. Supervising teachers in the University High School are listed with the departments of their teaching fields.

For a listing of the classroom supervising teachers in the Metcalf Elementary School see page 142. Other supervising teachers in the Metcalf Elementary School are listed in the departments of their teaching fields.

## AGRICULTURE

TEACHING STAFF
Head of the Department: Harvey S. Woods. Office: North Hall 104.
Professors: Harvey S. Woods, Orville L. Young.
Assistant Professors: Alfred A. Culver, Thomas J. Douglass, John W. Green, Clarence L. Moore.

## COMPREHENSIVE VOCATIONAL FIELD REQUIREMENTS IN AGRICULTURE

A second teaching field is not necessary with this vocational field. Because of the large number of courses in Agriculture required, a student need not take the following courses ordinarily required in the Curriculum for High School Teachers: Education 231, education or psychology elective.

The following courses are required: Agriculture 105, 108, 111, 115, 116, $118,121,124,125,128,135,208,213,214,216,219,225$ or $227,228,229$, 232, 234, 238; Biological Sciences 121, 190, 260, 291; Geography 175; Physical Sciences 112, 113.

FIRST FIELD (non-vocational) REQUIREMENTS IN AGRICULTURE
Courses in Agriculture must total 35 semester hours. The following specific courses are required: $111,115,116,118,121,125,135,208,213$ or 232,228 , 229.

SECOND Field (non-vocational) Requirements in agriculture
Courses in Agriculture must total 20 semester hours. The following specific courses are required: 115, 116, 121, 135, 229.

## COURSES IN AGRICULTURE

## 105 Genetics 3 sem. hrs.

Problems of heredity, variation, and evolution. Though primarily for students in agriculture and science, the course may be taken by other students for its rich social values.
108 Introduction to Agricultural Education 2 sem. hrs.
Brief history and trends, major objectives, community study, program planning, evaluation, relationships, teacher qualifications, training, and outlook in agriculture education.
111 Introductory Agricultural Economics 3 sem. hrs.
Fundamental principles of economics in application to agriculture, agricultural finance, prices, taxation, marketing, and land use.

## 115 Livestock Management 3 sem. hrs.

Origin, development, and improvement of cattle, horses, poultry, sheep, and swine; character and form of various farm animals, identification of types and breeds, coupled with judging; management of farm animals.

## 116 Livestock Feeding Principles 3 sem. hrs.

Classes of feeds, nutrients, and their functions in the animal body; nature and extent of demands for feeds for maintenance, growth, fattening, milk, wool, and work; choice of feeds and the compounding of rations.

## 118 Introduction to Dairying 3 sem. hrs.

Operation of the Babcock machine; testing, feeding, and management of herds; testing of milk, cream, butter, cheese, and ice cream for butter fat, acid, bacteria, casein, and adulterants.

## 121 Field Crops 4 sem. hrs.

Methods of planting, cultivating, and harvesting the common cereal and grain crops; control of fungus diseases, insect pests, and weeds; grades, improvement, and judging of grains.

## 124 Forage Crops 2 sem. hrs.

Production, utilization, and preservation of principal forage crops. Production and maintenance of meadows, pastures, and pasture mixtures.

## 125 Orcharding 2 sem. hrs.

Methods of propagating, choosing adaptable varieties, planting, pruning, spraying, cultivating, fertilizing, harvesting, storing, and marketing of deciduous fruits. Planning and care of the home orchard emphasized.

## 126 Small Fruit Culture 2 sem. hrs.

Principles and practices involved in the commercial and home plantings of blackberries, dewberries, raspberries, currants, gooseberries, strawberries, and other small fruits. Prerequisite: Agriculture 125.

## 128 Home Vegetable Gardening 2 sem. hrs.

Fundamentals of theories and practices of vegetable growing. Topics include: planning, selecting varieties, planting, transplanting, fertilizing, cultivating, harvesting, controlling insects and diseases, and harvesting and storing of vegetables. Field practices are stressed.

## 134 Elementary Landscape Architecture 2 sem. hrs.

Selection and arrangement of flowering plants, shrubs, trees, and vines for proper decoration of farmstead, home, and school grounds; disease and pest control; cultivating, fertilizing and pruning; fundamental principles of design and types of plans. Special values of evergreens considered.

## 135 Farm Shop Work 3 sem. hrs.

Farm shop organization and methods of teaching. Use and selection of tools for the performance of farm shop jobs. Practical jobs to develop skill suited to the needs of rural communities. For teachers of agriculture and general shop work in rural high schools.

## 141 Introductory Beekeeping 2 sem. hrs.

Fundamental facts of bee behavior, development and structure of honeybees, management for production of honey and beeswax and relation of beekeeping to horticulture and other fields of agriculture; location of apiary, assembling of equipment, and care of honey for the market.

## 201 Problems in Agriculture 3 sem. hrs.

Orientation in project work, 4-H Club, F.F.A., Rural Youth, Grange and Farm Bureau. Studies in cooperative marketing, land use, fertilizers, erosion control, hybrid corn and other crops, breeds of livestock, feeds and farm management. Particularly for teachers in service from villages and unit-district schools.

## 202 Hay and Seed Quality 3 sem. hrs.

Drying, germination, selection, and storage of seed; certification, distribution, and growing of better seeds; hybrid corn production; grading, judging, and showing grain and hay; inspection. performance, and purity tests. Prerequisite: Agriculture 124.

## 208 Soils 5 sem. hrs.

Origin, formation and classification of soils; soil treatment and management practices; laboratory practice in texture; acidity, plasticity, shrinkage and types. Prerequisite: Geography 175 and one course in Chemistry.

## 212 Agricultural Economics 3 sem. hrs.

Present-day agricultural economics, its place in the national economy, relief programs, effect of surplus on prices and incomes; price-raising schemes by government action; individual and cooperative adjustment and proposed reforms for agriculture.

## 213 Farm Management 3 sem. hrs.

Factors of production, such as equipment, labor distribution, cropping systems, and soils; organization and operation; types of farming.

## 214 Marketing Agricultural Products 2 sem. hrs.

Machinery of markets, price-making forces, reasons for existing practices, marketing services, cooperative marketing, and agriculture credit facilities.

## 216 Farm Accounting 3 sem. hrs.

Application of accounting principles and forms to the farm business. Attention given to farm financial records, feed records, labor records, production records, breeding records, inventories, and methods of determining livestock and crop production costs.

## 219 Economic Dairy Problems 2 sem. hrs.

Clean milk production; common dairy farm processing methods; sales methods, records, business methods; inspection, grading, and judging of commercial products. Prerequisite: Agriculture 118.

## 220 Dairy Cattle Breeding 3 sem. hrs.

Dairy herd improvement through breeding methods. Includes equipment, labor, management for purebred business, prominent breed families, popular blood lines, and pedigrees. Prerequisite: Agriculture 118.

## 225 Pork Production 3 sem. hrs.

Selection of breeds; care and management of breeding herd; care and feeding of growing and fattening pigs; McLean County Hog Sanitation Program; principles of selecting and judging swine for breeding and marketing.

## 227 Beef Production 3 sem. hrs.

Beef cattle industry; care and management of the breeding herd; care and feeding of fattening cattle; buildings and equipment; the fitting of cattle for show and sale.

## 228 Poultry Management 4 sem. hrs.

Selection of building site, housing, fixtures for poultry houses; choosing of breeds; management, feeding, and improvement of laying and breeding flock; selection, care, and incubation of eggs; brooding and growing chicks; marketing of products.

## 229 Livestock Judging 2 sem. hrs.

Fundamentals of livestock judging and its relation to production, marketing, and showing, individual scoring and comparative judging, show-ring practices, judging contests; breed and variety characters. Prerequisite: Agriculture 115.

## 230 Farm Meats 2 sem hrs.

Farm butchering, cutting, care and curing of meats; judging of meats; correlation of conformation and finish of live animal to the quality of dressed carcass; nutritive value, economy, selection and utilization of different cuts.

## 232 Farm Machinery and Tractors 3 sem. hrs.

Design, construction, purchase, adjustment, operation, maintenance, and repair of field machinery and tractors. Not open to students who have completed Agriculture 231.

233 Poultry Breeding, Judging, and Exhibiting 3 sem. hrs.
Genetic principles involved in poultry breeding, such as transmission of egg production, broodiness, egg shell and feather color; breeds and types of standard bred poultry; judging; preparation of poultry for show purposes. A small poultry show will be conducted by the class. Prerequisite: Agriculture 228.

## 234 Soil and Water Conservation; Farm Structures 3 sem. hrs.

Drainage, soil erosion control and water conservation on farms; planning, materials, construction, repair, and adaptation of structures to farm needs.

## 235 Advanced Soil and Water Conservation 3 sem. hrs.

Advanced work and practice in the principles of planning, constructing, and adapting soil conservation, water conservation, and drainage practices for Illinois farms, and the application of surveying to these principles. Prerequisite: Agriculture 234.

## 238 Evening and Part-Time Schools 3 sem. hrs.

Work of the teacher of agriculture in extension activities. Methods and subject matter in evening and part-time classes, as well as other extension services in vocational agriculture.

# ANTHROPOLOGY 

## (See Social Sciences)

## ART

## TEACHING STAFF

Head of the Department: F. Louis Hoover. Office: Centennial Building, West 203.

Professors: F. Louis Hoover, Marion G. Miller.
Associate Professors: Ruth M. Freyberger, Stanley G. Wold.
Assistant Professors: George Barford, Frank Bedogne, W. Douglas Hartley, Mary E. McMullan, Joseph M. Natale, Alice R. Ogle, Lysbeth Wallace, John H. Wesle.

Instructors: William J. Lee, William R. Lidh, Edwin E. Niemi, Perry N. Ragouzis, C. Louis Steinburg.

## GENERAL EDUCATION COURSES

To meet requirements for groups I and V, students may choose from the following courses in Art: 100, 150, 155, 156, 370.

## FIRST FIELD REQUIREMENTS IN ART

This field may require more than 128 semester hours for graduation, depending on the choice of a second field.

A senior exhibition which must meet the approval of the art staff is required.

Courses in Art must total 50 semester hours. The following specific courses are required: $103,104,109,110,113,114,126,127,132,155,156,161,201$, $202,203,204$, and 261 or 262.

## COMPREHENSIVE FIELD REQUIREMENTS IN ART

A second teaching field is not necessary with the comprehensive field.
A senior exhibition which must meet the approval of the art staff is required.

Courses in Art must total 60 semester hours. However, certain courses outside the Department may be included when approved by the Head of the Department of Art.

The following specific courses in Art are required: 103, 104, 109, 110, $113,114,126,127,132,155,156,161,162,201,202,203,204,261,262,370$.

## SECOND FIELD REQUIREMENTS IN ART

Courses in Art must total 22 semester hours. The following specific courses are required: $103,104,113,126,150,201,202$ or 203,204 . Art 204 must be taken concurrently with Art 202 or 203.

The Department of Art reserves the right to keep for demonstration and exhibition examples of work done by students for course requirements.

## COURSES IN ART

## 100 Introductory Art Workshop 2 sem. hrs.

Opportunity to work in a variety of materials chosen from such areas as jewelry, ceramics, weaving, leather, painting, printmaking, and sculpture. Students may select certain projects based on their individual interests.

## 101 Art Activities for Elementary Schools 2 sem. hrs.

The nature of the child at different stages of his growth in terms of his creative expression. Practical experience with a variety of materials and techniques suitable for the elementary school including design principles, manuscript lettering, signs and posters, scrap material projects and the use of crayons, clay and printing techniques.

## 102 Art Activities for Elementary Schools 3 sem. hrs.

Continuation of Art 101 including experimentation in drawing and painting, sculpture, cut and torn paper, bulletin board arrangement, the making of masks and murals.

## 103 and 104 Visual Elements Each 2 sem. hrs.

Experience with a wide variety of materials suitable for teaching children. Emphasis upon the individual and the importance of the creative experience in his total development.

## 105 Teaching Art in the Junior High School 2 sem. hrs.

A specific study of the art program needed by children in the junior high school. Social and physiological needs and their effects on the young adolescent. To train the student in skills and techniques used in arts and crafts for this age group. Prerequisite: Art 101 and 102.

## 108 Structural Design 2 sem. hrs.

Principles of design as applied to creating products for the home or for industry. Actual practice in product design, with emphasis on the form of the product and the material from which it is made.

## 109 Basic Materials 2 sem. hrs.

Workshop class concerned with the investigation and experimentation of fundamental materials including paper, wood, glass, metal, and plastics. Emphasis on visual and tactile qualities and methods of construction.

## 110 Basic Materials 2 sem. hrs.

Workshop class using the same materials as those in Art 109 and introducing the concept of space as an element of design. Emphasis on forming, joining, and finishing of materials. Prerequisite: Art 109.

## 111 Art Fundamentals 3 sem. hrs.

Practice in the use of fundamental art elements and principles in creative problems applied to everyday living in the home, school, and community. Emphasis upon the total work of art rather than upon media or technique. Primarily for students in Home Economics.

## 113 Life Drawing and Modeling 3 sem. hrs.

Anatomy and design of the human figure as a basis for use in creative expression. Media will include pencil, charcoal, lithograph, conté, pen and ink, and clay. Lectures one hour per week on human anatomy.

## 114 Life Composition 3 sem. hrs.

Continuation of the study of the human form, with special emphasis upon composition and the ability to achieve expressive drawing. Prerequisite: Art 113.

## 116 Puppetry 2 sem. hrs.

Brief survey and construction of several kinds of puppets suitable for use in elementary and secondary schools. Paper-bag and cloth puppets, stick and hand puppets, and string-controlled marionettes will be included.

## 118 Landscape Composition and Sketching 3 sem. hrs. Summer only

 Recreational course in sketching out-of-doors, using such graphic media as pencil, charcoal, and chalks.
## 124 Metal and Jewelry Crafts 2 sem. hrs.

Experience in designing and working with various metals suitable for use at the elementary and junior high school levels. Simple jewelry and enameling techniques.

## 126 Lettering and Layout 2 sem. hrs.

Historical development of letter forms. Practical experience in the use of lettering pens and brushes. The use of cut-paper letters for signs and posters. Prerequisite: Art 101, 103 or 111.

## 127 Pottery 2 sem. hrs.

Designing, making, glazing, and firing of pottery, accompanied by a study of the differences in earthenware, stoneware, and porcelain. Formulation of criteria for appraisal of various types of pottery.

## 132 Sculpture 2 sem. hrs.

Experimentation with modern sculptural techniques, including direct carving and the making of molds and casts.

## 140 Weaving 3 sem. hrs.

Experiments in the use of wool, cotton, rayon, linen, jute, plastic, and metallic threads. Use of two- and four-heddle table and floor looms, inkle looms, card weaving, and various types of looms which can be made by the student. Emphasis upon pattern and texture in creating original designs.

## 150 Art for Contemporary Living 2 sem. hrs.

Contemporary art forms and their relationship to everyday living. Attention given to the application of art principles in the selection of home furnishings, appliances, and other useful articles. Students who have had the former Art 107 may not take this course for credit.

## 155 History of Art 3 sem. hrs.

Development of art from prehistoric times to the Renaissance.

## 156 History of Art 3 sem. hrs.

Development of art beginning with the Renaissance to World War I.

## 161 and 162 Experimental Painting Each 2 sem. hrs.

A beginning course in painting experiments in transparent and opaque watercolor as well as oil painting.

## 200 Art Materials for Elementary Schools 3 sem. hrs.

The significance of the art experience at different stages in the growth and development of children. Practical experience in working with art materials suitable for the elementary level, such as crayon and chalk techniques, manuscript lettering, clay, cut and torn paper, scrap material projects, drawing and painting. For transfer students of junior standing and teachers in the field. Students who have had Art 101 and/or 102 may not take this course for credit.

## 201 Crafts for Elementary Schools 3 sem. hrs.

Simple crafts suitable for the elementary level such as weaving, simple jewelry, stitchery, enameling, hand puppets and printing techniques. Emphasis upon the sequential development of the craft in relation to the maturity and growth of the child. Students who have had Art 207 may not take this course for credit. Prerequisite: Art 101 or 103.

## 202 Teaching Art in Elementary Schools 2 sem. hrs.

Principles for establishing a creative art program in an elementary school. Planning of art work as an integral part of the experiences of the child at various levels.

## 203 Teaching Art in the High School 2 sem. hrs.

The development of art curricula to meet the needs of high school students. Problems of teaching and administering the school art program. Adapting the art program to large or small high schools and integrating it with other subject matter and extra-curricular activities.

## 204 Junior Participation in Art 1 sem. hr.

Observation and participation in teaching art at the elementary or secondary levels. This course must be taken concurrently with either Art 202 or 203.

## 207 Art for Exceptional Children 3 sem. hrs.

Practical use of design, materials, and techniques in the production of various crafts, plus methods of teaching to meet the individual art needs of children in special classes. For students in Special Education. Students who have had Art 201 may not take this course for credit. Prerequisite: Art 101.

## 211 Crafts for Secondary Schools 3 sem. hrs.

Advanced craft techniques suitable for secondary schools with emphasis upon design principles and functionality. Prerequisite: Art 103 or 111.

213, 214, 215 Life Drawing 1 sem. hr. each (Formerly 120, 121, 122) Practice in drawing the human figure. Prerequisite: Art 114.

## 224 Jewelry 2 sem. hrs.

(Formerly 324 )
Designing and making of jewelry in silver and other metals. Cutting, polishing, and setting stones. Advanced enameling techniques. Prerequisite: Art 124.

226 Lettering and Layout 2 sem. hrs.
(Formerly 266)
Advanced problems in lettering and layout with emphasis upon the yearbook. Prerequisite: Art 126.

## 227 Ceramics 2 sem. hrs.

(Formerly 377 )
Advanced problems in ceramic design. Practical experience in the production of various types of glazes. Prerequisite: Art 127.

## 232 Sculpture 3 sem. hrs.

(Formerly 347)
Advanced composition in various media suitable for sculpture. A survey of contemporary trends in sculpture. Prerequisite: Art 132.

## 240 Weaving 3 sem. hrs.

(Formerly 310)
Advanced problems in weaving with emphasis upon experimental work in textures. Prerequisite: Art 140.

## 245 Printmaking 2 sem. hrs.

Introduction to printmaking techniques including lithography, wood cuts, and silk screening.

## 261 Water-Color Painting 3 sem. hrs.

(Formerly 233)
Painting from still life, models, and landscape with special problems in color and composition. Use is made of the various water-color painting techniques in producing original compositions expressive of the experiences of the individual student. Prerequisite: Art 161 and 162.

## 262 Oil Painting 3 sem. hrs.

(Formerly 236)
Advanced composition in oil using abstract, still-life, landscape, and figure subjects. A survey of contemporary trends in oil painting. Prerequisite: Art 161 and 162.

## 321 Philosophy of Art Education 3 sem. hrs.

The role of art in society and the historic development of art education in public schools. Emphasis upon the development of a personal philosophy of the role of art in the democratic society.

## 324 Advanced Jewelry and Silversmithing 2-6 sem. hrs.

Special problems in jewelry and silversmithing. May be repeated. Prerequisite: Art 224.
327 Advanced Ceramics 2-6 sem. hrs.
Special problems in ceramics. May be repeated. Prerequisite: Art 227.

## 331 Advanced Drawing 1-3 sem. hrs.

Special problems in drawing. May be repeated. Prerequisite: Art 114.

## 332 Advanced Sculpture 2-6 sem. hrs.

Special problems in sculpture. May be repeated. Prerequisite: Art 232.

## 340 Advanced Weaving 2-6 sem. hrs.

Special problems in weaving. May be repeated. Prerequisite: Art 240.
345 Advanced Graphics 2-6 sem. hrs.
Special problems in graphic arts. May be repeated. Prerequisite: Art 245.
361 Advanced Painting 2-6 sem. hrs.
Special problems in painting. May be repeated. Prerequisite: Art 262.
370 Contemporary Art 2 sem. hrs.
(Formerly 327)
Development of modern movements in painting, sculpture, architecture, and industrial design in Europe and America.

## 375 Renaissance Art 3 sem. hrs.

(Formerly 419)
General influence determining the art product in Italy, Germany, Holland, England and Flanders; related arts. Sources and readings for research. Chronological survey of artistic evidence in architecture, sculpture, painting, and the minor arts.

381 Art in the United States 3 sem. hrs.
A survey of the development of painting, sculpture, industrial design, and architecture in the United States with an emphasis upon twentieth-century trends.

## BIOLOGICAL SCIENCES

## teaching staff

Head of the Department: R. Omar Rilett. Office: Science Building, 206. Professors: Walter H. Brown, Eleanor Dilks, Dorothy E. Fensholt, Nina E. Gray, J. Louis Martens, E. Ione Rhymer, Donald T. Ries, R. Omar Rilett. Associate Professors: Hisao Arai, Paul F. Doolin, J. Alan Holman, Loren W. Mentzer, Andreas Paloumpis, Robert D. Weigel.

Assistant Professors: Mary Arai, John R. Carlock, John K. Ellis, Dennis N. Homan, Harry O. Jackson, Anthony E. Liberta, Orrin J. Mizer, Edward L. Mockford, Harold A. Moore.

Instructor: Mohammad Abdullah.

GENERAL EDUCATION COURSES
To meet requirements for groups III and V, students may choose from the following courses in the Biological Sciences: 100, 121, 181, 182, 190, 260, 291. For group V, Biological Sciences 102 may be used. Biological Sciences 145 is required in group IV.

## FIRST FIELD REQUIREMENTS IN THE BIOLOGICAL SCIENCES

Courses in the Biological Sciences must total 37 semester hours. The following specific courses are required: 121, 122, 123, 190, 191, 192.

SECOND FIELD REQUIREMENTS IN THE BIOLOGICAL SCIENCES
Courses in the Biological Sciences must total 24 semester hours. The following specific courses are required: 121; 190; and at least 6 semester hours selected from 122, 123, 191 and 192.

SECOND FIELD REQUIREMENTS IN GENERAL SCIENCE
A student who has a first field in the Biological Sciences may elect this second field by taking the following 22 semester hours: Geography 105, 110, 175; Physical Sciences 112, 170, 171.

## SECOND FIELD REQUIREMENTS IN HEALTH EDUCATION

The following 21 semester hours are required: Biological Sciences 191 and 192, or 181 and $182 ; 248 ; 260 ; 240$ or $340 ; 284 ; 285$; Home Economics 106 or Industrial Arts 272.

FIRST FIELD REQUIREMENTS IN HEALTH EDUCATION
Students who have a first field in the Biological Sciences or Health and Physical Education may complete the following courses, in addition to those required for a second field in Health Education: Biological Sciences 242, 382; Education 102; 202 or 203 or 204; Psychology 201, 232; Health and Physical Education 180; Home Economics 212; Social Sciences 261, 262.

## COURSES IN THE BIOLOGICAL SCIENCES

Courses are listed under five topics: Biology, Botany, Health, Microbiology, Zoology.

## BIOLOGY

## 100 Introduction to Biological Science 3 sem. hrs. (Formerly 101)

Basic principles and subject matter of biology. Lecture. Not designed for students with a first or second field in the Biological Sciences. Students who have had a laboratory course in Biology may not take this course for credit.

102 Field Study in Marine Biology 2 sem. hrs.
(Formerly 120)
Collecting, identifying, and studying marine specimens of the coastal areas of Florida and the West Indies. Laboratory work in a marine biological station as well as further laboratory work on campus.

## 201 Field Biology 3 sem. hrs.

(Formerly 206)
Ecology and taxonomy of plants and animals as they occur in nature. Lecture, laboratory, and field study. Prerequisite: Any course in Biological Sciences except 145 or 248.

## 202 Natural Science 3 sem. hrs.

(Formerly 219)
For students in elementary school teaching. Insects, Illinois rocks and minerals, and simple experiments in physical sciences suitable for use in the elementary classroom. Preparation of two basic collections suitable for elementary teaching is required. Students who have had Biological Sciences 204 may not take this course for credit.

203 Natural Science 2 sem. hrs.
(Formerly 220)
For students in elementary school teaching. Conservation, plant and animal improvement, representative plant families, and practical use of biological and physical sciences materials in elementary teaching. Students who have had Biological Sciences 204 may not take this course for credit.

## 204 Natural Science 4 sem. hrs.

A combination of Natural Science 202 and 203 designed for students in a program of outdoor education. Students who have had Natural Science 202 or 203 may not take this course for credit.

## 216 General Physiology 3 sem. hrs.

Chemical and physical aspects of life processes. Lecture and laboratory. Prerequisite: Biological Sciences 121 and 190, and a course in Chemistry.
300 and 301 Readings in the Biological Sciences Each 1 sem. hr. (Formerly 400 and 401)
Required of all graduate students in the Biological Sciences.
302 History of Biology 3 sem. hrs.
An intensive survey of great personalities of biology emphasizing their contributions to the advancement of science. Lecture.

## 303 Teaching of Science in the Elementary Schools 3 sem. hrs.

(Formerly 403)
Present-day developments in science in relation to elementary-school situations. Consideration of the content, activities, and approach involved in the teaching of an integrated science program related to the life of the individual for various grade levels. Lecture and laboratory.

## 304 Seminar in Biology 1 sem. hr.

(Formerly 420)
Participation each semester by all seniors and graduate students in the Department is recommended. Credit is given only for the first semester of participation. Staff, guest speakers, and graduate students will discuss their research at these seminars.

## 305 Special Problems in Biology 1-3 sem. hrs.

(Formerly 421)
Special work in a variety of fields including biometry, mycology, algae, herpetology, ichthyology, mammalogy, radiation biology, genetics, ecology, and microtechnique. Assignments depend on student's interest and background. Projects must be approved by the instructor and the Head of the Department.

## 306 Regional and Areal Studies 1-9 sem. hrs.

An intensive study of particular lands, environments, cultures, and peoples. May be given in cooperation with other departments, on or off the campus. The areas to be studied, participating departments, and credit hours available in the several departments, will be announced each time the course is offered.

## 318 Laboratory Techniques 2 sem. hrs.

Procedures for the preparation of biological materials of all kinds. Preparation of microscope slides, embedding in plastic, plastic injections, nerve preparations, and the building of models are undertaken. Lecture and laboratory.

## 319 Genetics and Evolution 3 sem. hrs.

(Formerly 321 )
Mechanics of inheritance and evolution in the plant and animal kingdoms. Prerequisite: 12 semester hours of courses with laboratory in Biological Sciences.

## BOTANY

## 121 General Botany 3 sem. hrs.

(Formerly 112)
Principles of plant structure, growth, physiology, and reproduction; the evolution, distribution, taxonomy and phylogeny of plants. Lecture and laboratory.

## 122 Comparative Botany 3 sem. hrs.

(Formerly 131)
Morphological and taxonomic study of the Thallophytes and Bryophytes. Lecture and laboratory. Prerequisite: Biological Sciences 121.

## 123 Comparative Botany 3 sem. hrs.

(Formerly 132)
External form and internal structure of the vascular plants. Field work, plant identification, and ecological factors are also included. Lecture and laboratory. Prerequisite: Biological Sciences 121.

320 Plant Pathology 4 sem. hrs.
(Formerly 523)
Taxonomy and life cycles of the fungi causing plant diseases. A study of recent literature in phytopathology is included. Lecture and laboratory.

## 331 Plant Taxonomy I-Seed Plants 3 sem. hrs.

Plant classification with emphasis on the taxa of higher plants. Lecture and laboratory.
332 Plant Taxonomy II-Lower Plants 3 sem. hrs.
Classification of plants, excluding the seed plants. Lecture and laboratory.

## 333 Comparative Plant Morphology 3 sem. hrs.

Survey of the plant kingdom from the standpoint of comparative morphology as illustrated by selected plant types, with particular emphasis on evolutionary tendencies. Lecture and laboratory.

## HEALTH

## 145 Hygiene 2 sem. hrs.

(Formerly 105)
Factors determining health, with special consideration given to the principles and practices of health promotion. Lecture.

## 240 Modern Health Problems and Procedures 3 sem. hrs.

Interpretation of personal health and group health problems. To acquaint teachers in service with recent developments in the field of health. Qualified students will find time to devote to problems of their own choosing. Prerequisite: Biological Sciences 248.

## 242 Community Public Health 2 sem. hrs.

Its relation to school, home, and community. Principles of epidemiology, isolation techniques, and community health in general. To meet the needs of health educators, supervisors, and administrators. Prerequisite: One year's work in laboratory science.

## 248 School Health 2 sem. hrs.

(Formerly 238)
Teaching and supervision of school health in grade schools including the prevention and control of disease in the community. Lecture only. Prerequisite: Biological Sciences 145.

## 259 Health Education Center 1-6 sem. hrs.

Instructional program, individual problems, recent health legislation, and health service procedures are considered. Other areas participating are Education and Psychology, Health Service, Home Economics, and Health and Physical Education. Designed to meet the needs of teachers and administrators in the correlation of the various resources of school and community into a comprehensive health program. Prerequisite: Teaching experience or Biological Sciences 248.
340 Administration of School Health 3 sem. hrs.
(Formerly 412)
Administration and organization of school health education programs. Lecture.

## MICROBIOLOGY

160 Elementary Bacteriology 3 sem. hrs.
(Formerly 115)
Bacteria, yeasts, and molds; morphology, ecology, and principal activities as related to nursing, public health, communicable disease and sanitation. Lecture and laboratory. Prerequisite: Concurrent registration as student nurse.

## 260 Introductory Bacteriology 3 sem. hrs.

(Formerly 211)
Fundamental concepts and techniques of bacteriology; isolation, cultivation and observation of bacteria, yeasts, and molds; morphology, physiology, and nutrition of micro-organisms; their role in nature, agriculture, home economics, and sanitation. Lecture and laboratory. Prerequisite: A laboratory course in the Biological Sciences. A semester course in college general chemistry is recommended.

## 261 General Bacteriology 2 sem. hrs.

(Formerly 212)
General characteristics and methods of cultivation and identification of bacteria; biochemical changes and bacteria; their role in industry. Lecture and laboratory. Prerequisite: Biological Sciences 260.

## 360 School and Community Sanitation 3 sem. hrs. (Formerly 411)

Microbiology as applied to community water supply and waste disposal, stream pollution, swimming pools, milk and milk products, food and its distribution, and air pollution. Laboratory includes determination of biochemical oxygen demand, color and spectrophotometric determination of residual chlorine, as well as field observation of typical water and sewage installations. Lecture and laboratory.

## ZOOLOGY

## 181 Functional Anatomy 3 sem. hrs.

Anatomy and physiology of representative simple animals to give the students sufficient background to understand the more complex functioning of the human organ systems. Lecture and laboratory.

Mammalian anatomy and physiology with special emphasis on human physiology and organ systems. Lecture and laboratory. Prerequisite: Biological Sciences 181.

## 183 Physiology and Anatomy 4 sem. hrs.

(Formerly 147)
Structure and functions of the human body. Specially designed to meet the needs of nurses. Lecture and laboratory.

## 190 General Zoology 3 sem. hrs.

(Formerly 111)
Physiology, morphology, anatomy, genetics, and evolution of representatives of the animal phyla.

# 191 Comparative Zoology 3 sem. hrs. <br> (Formerly 121) <br> Non-chordates. Lecture and laboratory. Prerequisite: Biological Sciences 190. 

# 192 Comparative Zoology 3 sem. hrs. <br> ( Formerly 122) <br> Chordates. Lecture and laboratory. Prerequisite: Biological Sciences 190. 

## 284 The Human Body-Morphology and Function 3 sem. hrs. <br> (Formerly 250)

For those who need information based directly upon the study of the human body. Attention is given to the entire skeletal system and to the parts of the other organ systems located below the diaphragm. Lecture and laboratory. Prerequisite: Biological Sciences 182, 192 or Health and Physical Education 182; consent of instructor.

285 The Human Body-Morphology and Function 2 sem. hrs.
(Formerly 251)
A continuation of Biological Sciences 284. Attention is given to all parts of the organ systems located above the diaphragm. Lecture and laboratory. Prerequisite: Biological Sciences 284.

291 Entomology 3 sem. hrs.
(Formerly 201)
Morphology and taxonomy of insects. Lecture and laboratory. Prerequisite: Biological Sciences 190.

## 381 Applied Human Anatomy 3 sem. hrs.

(Formerly 345)
For those preparing to teach special classes of physically-handicapped children. The educational implications are stressed. Lecture and laboratory. Prerequisite: Biological Sciences 182.

## 382 The Eye-A Laboratory and Clinical Study 2 sem. hrs.

(Formerly 347)
Anatomy and physiology of the eye. Observations and demonstrations in the school and clinic for the detection and care of eye disorders. Lecture and laboratory. Prerequisite: Biological Sciences 182.

## 383 Parasitology 4 sem. hrs.

Morphology, life histories, host-parasite relationships and methods of control of arthropod, helminth and protozoan parasites of man, domestic and wild animals. Parasitological techniques and methods of laboratory diagnosis will be included. Lecture and laboratory.

## 385 Physical Defects-Survey and Rehabilitation 3 sem. hrs.

Physical defects of handicapped children and procedures used in their rehabilitation. For those preparing to teach special classes of physically-handicapped children. Includes special services, equipment, and activities used in the rehabilitation programs. Lecture and laboratory. Also offered as Health and Physical Education 385. Prerequisite: Biological Sciences 381.
391 Entomology 4 sem. hrs.
(Formerly 422)
Anatomy, physiology, and embryology of insects. Lecture and laboratory.
392 Histology and Embryology 3 sem. hrs.
(Formerly 317)
Introduction to organ structure and development. Lecture and laboratory. Prerequisite: Biological Sciences 192.

Morphology, physiology, reproduction and life cycles, heredity, classification, habitats and ecology, methods of collection, cultivation and cytological techniques of protozoa, as well as the history of Protozoology. Lecture and laboratory.
395 Ornithology 3 sem. hrs.
Morphology, anatomy, ecology, life history, and identification of birds. Lecture, laboratory, and field work.

## BOTANY

(See Biological Sciences)

## BUSINESS EDUCATION

## TEACHING STAFF

Head of the Department: Lewis R. Toll. Office: Cook Hall 103.
Professors: Raymond W. Esworthy, Harold F. Koepke, Margaret K. Peters, Lewis R. Toll.

Associate Professors: Doris H. Crank, H. Earle Reese.
Assistant Professors: Helen W. Benjamin, Marie Jessa, Warren S. Perry, Harriet R. Wheeler.

Instructors: Donette Jackson, Norene Kurth, William M. Mitchell.

## GENERAL EDUCATION COURSES

To meet requirements for group V , students may choose from the following courses in Business Education: 111, 141.

## FIRST FIELD REQUIREMENTS IN SECRETARIAL EDUCATION

Courses in Business Education must total 37 semester hours. The following specific courses are required: $111,112^{*}, 113^{*}, 114,115,122^{*}, 123^{*}$, $124,131,132,211,212,261$. In addition to the 37 semester hours, Social Sciences 107 is required.

## FIRST FIELD REQUIREMENTS IN BUSINESS ADMINISTRATION

Courses in Business Education must total 37 semester hours. The following specific courses are required: $111 ; 112^{*}$ and $113^{*}$, or 113 and 114 or $211 ; 117$; $131 ; 132 ; 141 ; 142 ; 231 ; 232 ; 252 ; 261$; one of the following courses: 253, $254,255,356,357$. In addition to the 37 semester hours, Social Sciences 107 is required.

COMPREHENSIVE FIELD REQUIREMENTS in buSiness EdUCATION
A second teaching field is not necessary with this comprehensive field.
Courses in Business Education must total 50 semester hours. The follow-

[^5]ing specific courses are required: $111 ; 112^{*}$ and $113^{*}$, or 113 , or $114 ; 115 ; 117$; $122^{*} ; 123^{*}$; $124 ; 131 ; 132 ; 141 ; 142 ; 211 ; 231 ; 252 ; 261$; at least five additional semester hours in courses numbered 200 or more. Social Sciences 171 may be used toward this field. In addition to the 50 semester hours, Social Sciences 107 is required.

## SECOND FIELD REQUIREMENTS IN SECRETARIAL EDUCATION

Courses in Business Education must total 20 semester hours. The following specific courses are required: $112^{*}, 113^{*}, 114,122^{*}, 123^{*}, 124,211,212$.

## SECOND FIELD REQUIREMENTS IN ACCOUNTING AND LAW

Courses in Business Education must total 21 semester hours. The following specific courses are required: $117,131,132,141,142,231,232$ or 252.

## SECOND FIELD REQUIREMENTS IN GENERAL BUSINESS

Courses in Business Education must total 20 semester hours. The following specific courses are required: 111, 131, 132, 252, 253, 254, 255 or 356.

## SECOND FIELD REQUIREMENTS IN DISTRIBUTIVE BUSINESS

Courses in Business Education must total 24 semester hours. The following specific courses are required: $111,117,131,132,141,252,254,357$.

Geography 113, Economic Geography, may be used in a first, comprehensive, or second field in Business Education.

## COURSES IN BUSINESS EDUCATION

## 111 Introduction to Business 3 sem. hrs.

Basic fundamentals of business operation such as: borrowing, lending, elementary contract making, business ethics, buying and selling practice, planning and budgeting, and an approach to the mathematics of business activities. The object is to orient the student to business thinking.

## 112 Typewriting 2 sem. hrs.

Knowledge of the typewriter and development of skill in typewriting smoothly, accurately, and continuously for ten minutes from straight copy.

## 113 Typewriting 3 sem. hrs.

Development of individual skills in operation to a minimum attainment of forty words per minute on a varied selection of material. Instructional methods are included. Prerequisite: Business Education 112 or one year of high-school typewriting.

## 114 Typewriting 3 sem. hrs.

Skill in setting up all forms of letters, in typing legal and business documents, in tabulation, and in cutting stencils is required. At the end of the course the student must submit three tenminute tests with a net rate of at least fifty words per minute. Prerequisite: Business Education 113 or two years of high-school typing.

[^6]
## 115 Business Correspondence 2 sem. hrs.

Fundamental principles that govern the several kinds of business letters and practical methods of writing the types which arise from the more typical business situations. Composition of the common types of business reports.

## 117 Business Mathematics 3 sem. hrs.

Background course in business education providing training for those preparing to teach business arithmetic in high schools. Problem material, fundamental business calculations, financial statements and analysis, and the mathematics of merchandising.

## 122 Shorthand 3 sem. hrs.

Correct writing and reading techniques, learning and application of principles, vocabulary of frequent words, developed through drills, reading, and dictation. Eight chapters of Gregg Manual and reading text.

## 123 Shorthand 3 sem. hrs.

Continued development of skills in writing, reading, and vocabulary building. Introduction of transcription. Minimum requirement: sixty words a minute for five minutes. Prerequisite: Business Education 122 or one year of high-school shorthand.

## 124 Shorthand 3 sem. hrs.

Dictation and transcription course with emphasis on letter set-up, principles of English mechanics, and development of transcribing ability and speed. Minimum requirement: eighty words a minute for five minutes, correctly transcribed. Prerequisite: Business Education 123 or two years of high-school shorthand.

## 131 Accounting 3 sem. hrs.

Business records in single proprietorship and in partnership. Covers operating statements and balance sheets with particular attention to the forms and the sources of the facts in the statements. Includes practice with controlling accounts, columnar journals, adjusting and closing books, and the work sheet.

## 132 Accounting 3 sem. hrs.

Corporation accounting including consideration of cost accounting elements and the preparation of manufacturing statements. Interpretation of simple financial statements. Problem material is used to give the student sufficient opportunity for practice in accounting usage. Prerequisite: Business Education 131.

## 141 Business Law 3 sem. hrs.

Law and its administration, contracts, agency, negotiable instruments, labor legislation, insurance, and suretyship. Case materials are used to develop an understanding of legal principles.

## 142 Business Law 3 sem. hrs.

Bailment, common carriers, sales partnerships, corporations, property, bankruptcy, torts, and business crimes. Problems and case materials are included.

## 211 Office Practice 3 sem . hrs.

Practice in assuming various office duties, in supervising office routine, in securing a measure of skill on the various office machines, and in working projects that can be used for the teaching of advanced typewriting and office practice courses in the high school. This course counts as credit in typewriting. Prerequisite: Business Education 113 or 114.

## 212 Advanced Transcription 3 sem. hrs.

Primary emphasis on the application of the principles of functional English to the typewritten transcript. Prerequisite: Business Education 114 and 124.

## 231 Accounting 3 sem. hrs.

Revenue records affecting all types of business ownership. General accounting theory as applied to corporations, with special emphasis on concrete problems in manufacturing enterprises. Techniques of bookkeeping instruction are included. Prerequisite: Business Education 132.

## 232 Accounting 3 sem. hrs.

Accounting for special types of business, together with a review of general accounting theory. A general survey of accounting for social security, systems and auditing, manufacturing cost accounting, and the relation of accounting to income taxation. Prerequisite: Business Education 231.

## 252 Economics of Business 3 sem. hrs.

Adjusting economic theory to intelligent business administration. Case-method approach is used. Profits and risk, demand and supply, business cycles and public policy are considered as factors influencing the decisions of management.

## 253 Business Organization and Management 3 sem. hrs.

Evaluation of different types of business organizations, methods of creation, and internal operating policies. Plant facilities, location, production, traffic problems, credit, human relations, control purchases, and sales are given special consideration. Prerequisite: Social Sciences 171 or Business Education 252.

## 254 Advertising and Salesmanship 2 sem. hrs.

Practical problems of distribution of goods and consumer demand. Applied principles of selling both through publicity channels and through direct personal approach. Some selling practice is included and personnel development methods are used. Prerequisite: Social Sciences 171 or Business Education 252.

## 255 Marketing 3 sem. hrs.

Functions, processes, agencies, and personnel involved in the marketing of goods and services of all major types, with emphasis on the distribution of consumer goods. Prerequisite: Social Sciences 171 or Business Education 252.

## 261 Principles of Business Education 2 sem. hrs.

Stimulation of professional interest in the entire field of business education through a consideration of such topics as: purposes of business education, outstanding research and literature in the field, construction of the business curriculum, surveys of the local business community and of present and former pupils, cooperative part-time training for office and distributive occupations, and guidance responsibilities of business teachers.

## 310 Consumer Business Problems 2 sem. hrs.

(Formerly 410)
Application of business knowledge to the solution of practical problems of the consumer. Emphasis on improved living standards through better management of personal finances.

## 311 Fundamentals of Insurance 3 sem. hrs.

(Formerly 411)
Principles of insurance and fundamental applications to individuals, business establishments, and governmental institutions. Life, casualty, fire, automobile, accident and health, and marine insurance.

## 330 Governmental Accounting 3 sem. hrs.

(Formerly 430)
Procedures, accounts, and reports of governmental agencies; the solution of problems embracing the practical application of fund accounting and the interpretation of financial reports of various government units. Prerequisite: 5 semester hours of accounting.

## 331 Cost Accounting 3 sem. hrs.

(Formerly 431)
Elements of production costs, including materials, labor, and overhead or burden; the job-cost, the process-cost, and the standard-cost systems; the solution of problems embracing the practical application of costing methods, formulas, and standard costs. Prerequisite: 9 semester hours of accounting.

## 332 Auditing 3 sem. hrs.

(Formerly 432 )
Verification, analysis, and interpretation of accounting records. Auditing principles and procedures are applied to the audits of cash; securities and investments; receivables, inventories, assets, and liabilities; balance sheet; profit and loss statement; and working papers. Prerequisite: 12 semester hours of accounting.

340 Problems in Office Management 2 sem. hrs. (Formerly 440)
Detecting, analyzing, and solving problems applicable to large or small offices. Principles of office organization and operation are discussed and applied to cases under consideration. Individual and committee investigations are conducted, and selected office managers are called upon to serve as resource persons.

## 356 Business Finance 3 sem. hrs.

Problems and methods of financing business, function of banking, business risks as an influence on financial management, and interpretation of the security markets. Prerequisite: Social Sciences 171 or Business Education 252.

357 Retailing 2 sem. hrs.
Organization and operation of retail stores and service establishments of various types with some consideration of the application of the content to distributive education and general business subjects of the high school. Whenever feasible, the local business community will be used as a laboratory for the observation and analysis of retailing practice. Prerequisite: Social Sciences 171 or Business Education 252.

## 360 Business Data Processing 3 sem. hrs.

Business data processing involving the fundamental characteristics of mechanical and electronic systems and their application to business. Prerequisite: 6 semester hours of accounting.

## 370 Purchasing Policies and Procedures 3 sem. hrs.

Purchase of materials, supplies, and equipment as a major business function. Organization for purchasing, internal requisitioning and stock control. Basic procurement principles, processes, and problems in industrial, governmental, and institutional organizations. Actual business cases analyzed.

## CHEMISTRY

(See Physical Sciences)

## ECONOMICS

(See Social Sciences)

## EDUCATION AND PSYCHOLOGY

## TEACHING STAFF

Head of the Department: Frank N. Philpot. Office: Schroeder Hall 406.
Professors: Rose B. Buehler, William I. DeWees, Claude M. Dillinger, Cecilia J. Lauby, Elden A. Lichty, William R. Lueck, Stanley S. Marzolf, Robert H. Moore, Helen M. Nance, Stanley K. Norton, Harold R. Phelps, Frank N. Philpot, John L. Reusser, Mary C. Serra, Herman R. Tiedeman.

Associate Professors: E. Scott Blankenship, R. Elizabeth Brown, Valjean M. Cashen, Leo E. Eastman, Walter H. Friedhoff, William J. Gnagey, Ivo P. Grief, Dean S. Hage, Charles R. Hicklin, Benjamin C. Hubbard, Richard E. Hulet, Homer T. Knight, Clarence H. Kurth, Ralph A. Meyering, Murray L. Miller, Leon T. Ofchus, Donald M. Prince, Morton D. Waimon.

Assistant Professors: Lessie Carlton, Dorothy H. Carrington, John P. Casey, Thelma Foṛce, William Frinsko, John W, Gillis, Henry J. Hermanowicz,

Elizabeth Hughes, Samuel Hutter, Margaret Jorgensen, Burton C. Kelly, Lois Lilly, Normand W. Madore, Ernest E. Olson, Edwin A. Payne, Frances D. Prince, Evelyn J. Rex, Lillie Mae Rickman, Elizabeth Russell, Nelson Smith, Vivian Tasker.

Instructors: Sharon Eggers, Dorothy Hostettler, Lucile Q. Jones, Alice L. O’Brien, Betty Woodson, Ethel Wooley.

## GENERAL EDUCATION COURSES

Psychology 111 is required in group IV.
To meet requirements for group V , students may choose from the following courses: Education 230, 232; Psychology 232.

## SECOND FIELD REQUIREMENTS IN PSYCHOLOGY

Courses in Psychology must total 24 semester hours. The following specific courses are required: 111, 115, 232, 330, 331.

## COURSES IN EDUCATION AND PSYCHOLOGY

Courses are listed under two topics: Education and Psychology.

## EDUCATION

101 Introduction to Elementary Teaching 3 sem. hrs. (Formerly 104)
Orientation to the profession and a study of the relationship of elementary education within the organization of American public education. Directed observations on all grade levels are included.

102 Child Growth and Development 3 sem. hrs.
(Formerly 108)
Physical, intellectual, emotional, and social growth and development of children and the influence of home, school and community environment upon this growth; techniques of studying and evaluating growth applied through continuous observation and making of an individual case study. Students who have had Psychology 115 may not take this course for credit. Prerequisite: Psychology 111.
103 Reading Methods 3 sem. hrs.
(Formerly 107)
Basic principles and techniques of the teaching of reading in the elementary school. Emphasis on reading as a phase of communication and its relation to the other language arts. Instruction in, and observation of, the use of materials and techniques in the teaching of word recognition (including phonics), comprehension, and critical reading. Prerequisite: Education 102 or Psychology 115.
104 Reading Clinic 1 sem. hr.
(Formerly 121)
Basic reading problems presented by a guest instructor and regular staff members. An intensive course for one week.

145 Introduction to Special Education 3 sem. hrs. (Formerly 162)
Educational provisions for exceptional children: the partially sighted, physically handicapped, deaf and hard of hearing, mentally subnormal, gifted, and socially maladjusted. For all classroom teachers and administrators who wish general information in this field.

## 201 Advanced Reading Clinic 1 sem. hr.

(Formerly 219)
Problems in remedial reading as presented by a guest instructor and regular staff members. Demonstrations of new and special equipment in connection with remedial work. An intensive course for one week. Prerequisite: Education 104.

## 202 Early Childhood Education 4 sem. hrs.

(Formerly 232)
Primary education as a basic unit of the elementary school; the physical plant, equipment, organization; overview of the curriculum with emphasis on learning experiences through a unified program; special emphasis on language arts (including spelling and manuscript writing); number concepts; science experiences; social studies; methods of evaluation consistent with growth needs of young children. Participation in primary classroom activities is required except for experienced teachers. Prerequisite: Education 103.

## 203 Middle Grade Education 4 sem. hrs.

(Formerly 233)
Methods and materials in intermediate grades with special emphasis upon language arts, including spelling and handwriting; arithmetic, science, and social studies; instructional problems for teachers of the middle grades; selection, organization, and use of curriculum materials; the unified program of activities; pupil appraisal. Participation in middle-grade classroom activities is required except for experienced teachers. Prerequisite: Education 103.

## 204 Upper-Grade-Junior-High Education 4 sem. hrs. (Formerly 234)

Problems in adapting school experiences to the special needs and interests of young adolescents in various types of school organization-in separate grades, departmentalized, and junior-high school; special emphasis on methods and materials in language arts, social studies, arithmetic, and science activities. Participation is required except for experienced teachers. Prerequisite: Education 102 or Psybhology 115.

## 205 Problems of the Teacher 3 sem. hrs.

(Formerly 236)
The role of the classroom teacher as a member of a school staff, concerned with such problems as: curriculum development, classroom management, teacher-pupil planning, providing for individualized differences, making records and reports, understanding research and literature of various teaching fields, testing and evaluation instruments and procedures, school-community relations, in-service education. Issues in American public education and a knowledge of professional organization are emphasized. Teaching competencies are considered by each student. Prerequisite: Education 102 or Psychology 115.

## 206 The Curriculum 2 sem. hrs.

(Formerly 266)
An overview of curricular principles, programs, and procedures, with adaptations for exceptional children in the special fields. Prerequisite: Education 145.

## 207 Advanced Reading Methods 3 sem. hrs.

Practical problems utilizing group techniques in the teaching of reading in each grade level of the elementary school. Integrates reading with non-reading learning activities. Involves direct experiences with children. Prerequisite: Education 103.

## 215 American Public Education 3 sem. hrs.

(Formerly 211)
Organization of American public education-federal, state, county and local; provisions for materials and environment-curriculum, co-curriculum; buildings, equipment, finance; school and community relations, including P.T.A. and other community and adult education groups; and issues in American education. Prerequisite: Psychology 115 or Education 102.

## 216 Secondary Education 4 sem. hrs.

(Formerly 220)
Basic principles and techniques of teaching: learning goals and their function, selection and organization of subject matter, assignment procedures, selection and use of various teaching aids, practice in unit and daily planning, guidance and discipline, using community resources, teacherstudent planning, small-group techniques, and procedures for evaluating and reporting the results of instruction. Prerequisite: Education 102 or Psychology 115.

217 Extracurricular Activities in Secondary Schools 2 sem. hrs.
(Formerly 224)
Survey of the so-called extracurricular activities in secondary schools. Types of activities, aims and values, practices in organization, administration, and supervision of these activities. Prerequisite: Psychology 115.

## 218 Secondary-School Reading 3 sem. hrs.

(Formerly 223)
Developmental and remedial aspects of high-school reading for senior and junior high-school teachers, supervisors, and administrators; the identification and development of reading skills and techniques; procedures helping in vocabulary building, comprehension and interpretation, and adaptation of rate to purposes of reading; special consideration to reading problems in subject fields, in reading interests and tastes, in securing practice materials, and administrative problems. Prerequisite: Education 215.

## 219 Secondary-School Reading Clinic 1 sem. hr.

(Formerly 222)
Problems in reading on the secondary school level, including junior-high and senior-high school. An intensive course for one week.

230 Introduction to Philosophy 3 sem. hrs.
(Formerly 251)
Brief treatment of the historical development of philosophy, as well as a brief survey of the more important modern problems, aims, and methods.

## 231 Introduction to Philosophy of Education 3 sem. hrs.

(Formerly 203)
Philosophy as applied to educational problems for determining the nature of the educative process, the ends and objectives of education, and the means of attaining educational ends. Lays basis for a philosophy of life and of education in a democratic society. Prerequisite: Senior standing and completion of all required education courses except student teaching.

## 232 Ethics 3 sem. hrs.

(Formerly 252)
Principles underlying human conduct, with applications to the life of the individual and to society.

## 240 Audio-visual Education 2 sem. hrs.

Theory, materials, and methodology of audio-visual education. Criteria for evaluating and selecting materials; sources and care of materials; methods of using audio-visual aids in the classroom. Laboratory work includes experiences with handmade lantern slides, elementary photography, graphics, tape recording, projection equipment, and field-trip management. Three class periods per week include laboratory. Prerequisite: Psychology 115 or Education 102.

## 241 Tests and Measurements 3 sem. hrs. (Formerly 208 and 221)

Achievement and intelligence tests for grades 1 through 12. Particular emphasis upon achievement tests, their evaluation, methods of administering, analysis of results, and remedial teaching. Prerequisite: Education 102 or Psychology 115.

299 Independent Study in Education 2 to 4 sem. hrs. (Formerly 295) Provides opportunity for exceptional students to engage in independent pursuit of special areas, under supervision. Careful planning and evaluation will be required. Open to juniors and seniors who have outstanding records of achievement. Approval of Head of Department of Education and Psychology necessary.

## 301 Laboratory Reading Methods 3 sem. hrs.

(Formerly 205)
Techniques of diagnosis and instruction for special cases of severe reading disability. Deals with physical, mental, and emotional maladjustments and teaching errors which may become causal factors in reading disabilities. Provides opportunity for preparation of instructional materials and for laboratory work with children having serious reading difficulties. Three double periods per week. Prerequisite: Education 103.

## 331 Readings in Educational Research 1 sem. hr.

(Formerly 405 and 406)
Study and evaluation of current research dealing with the student's major field of interest. The course acquaints the student with research in many phases of education from the nursery school through the community college.

## 333 The Junior High School 2 sem. hrs.

(Formerly 410)
Function of the junior high school, characteristics and needs of early adolescents, articulation with the elementary and high schools, traditional and core curriculums, organization, administration, and evaluation of programs for early adolescents.

334 Public Relations for Education 2 sem. hrs.
(Formerly 431)
Analysis of the need for public relations and study of programs for education. Wide use of visual aids and community resources. Work of the individual student will focus on practical problems related to his area of specialization. Ways of evaluation will be included.

335 History of Education 3 sem. hrs.
(Formerly 460)
Development of educational systems and programs. Emphasis on the historical perspective of modern educational problems.

## 345 Special Classes for the Trainable 2 sem. hrs.

(Formerly 342)
Organization of classes, teaching methods, behavior and progress records and reports, home-schoolcommunity relations.

## 346 Education for the Mentally Retarded 2 sem. hrs. (Formerly 343)

Study of objectives, curriculum content, methods, and organization of work in classes of mentallyretarded children. Emphasis on case records.

## 347 Problems of the Brain Injured 2 sem. hrs.

(Formerly 451)
Problems of diagnosis, psychological evaluation, and educational adjustments needed by the cerebral palsied. Relationship to other therapies. Observation and planned participation in a group of cerebral palsied. For experienced teachers who wish to specialize in working with the cerebral palsied.

## 348 Education of Gifted Children 2 sem. hrs.

(Formerly 453)
Organization of the program for the education of gifted children. Methods of identification, curriculum adjustments, creative activities, guidance, appraisal of progress, and parent relationships. For teachers, administrators, and personnel workers.

## 349 Education of the Physically Handicapped 2 sem. hrs.

(Formerly 345)
Adaptation of the curriculum; coordination of educational and medical programs; preparation of case records; special school equipment; survey of institutions and agencies interested in the physically handicapped; observations in orthopedic rooms and hospital schools. For teachers of crippled, cerebral-palsied, and otherwise physically-handicapped children except in speech, hearing, and vision.

350 Education of the Partially Seeing 2 sem. hrs.
(Formerly 344)
Selection and placement of pupils; organization of the program; methods of sight conservation; special equipment; case records; observation in clinic.

## 351 Education of the Blind 3 sem. hrs.

(Formerly 349)
Nature and needs of the blind. Interpretation and evaluation of medical, social, psychological, and educational records and reports. Types of educational programs. Methods and materials for blind children of school age.

## 352 Braille Reading and Writing 2 sem. hrs.

(Formerly 348)
Designed to develop mastery of braille. Use of the braille writer and other devices for writing. Procedures for teaching braille. Preparation and use of braille materials for purposes of conmunication and evaluation.

## 353 Education of the Deaf 2 sem. hrs.

Oral, manual, and combined methods of teaching the deaf with a philosophical and historical background of each. The effect of hearing loss on the understanding of language and the implications for the education of deaf children.

## 354 Speech for the Deaf 3 sem. hrs.

The development of oral communication in hearing children compared to deaf children. Methods of developing speech in the pre-school and school age deaf child using the visual, auditory, kinesthetic, and tactile approaches. Observations and participation in classes for the deaf. Prerequisite: Education of the Deaf 353.

## 355 Language and School Subjects for the Deaf 3 sem. hrs.

Principles and techniques of teaching language to the pre-school and school age deaf child. Leading systems of teaching language to the deaf. Methods of teaching reading, arithmetic, social studies, science, and other school subjects to the deaf. Prerequisite: Education of the Deaf 353.

## 360 Introduction to Guidance 2 sem. hrs.

(Formerly 427)
Aims, needs, development, and present status of guidance in secondary schools. Means of learning individual capacities, special abilities, and interests. The giving of vocational information. Emphasizes the role of the classroom teacher as well as the organization and administration of guidance activities.

## 399 Student Teaching 1-10 sem. hrs.

(Formerly 210 and 215)
Directing the learning of pupils; participating in school and community activities; assuming full responsibility for a group of learners under the supervision of an expert teacher. Required of all students before graduation. Assignments are made on the basis of the student's area of specialization. High School student teaching assignments include work in special methods in the subjects taught. Prerequisite: 1. Education 216 for high school student teaching or one of Education 202, 203, or 204 for student teaching in the elementary school and special education. 2. Satisfactory preparation in the area of specialization. 3. Approval of the Director of Professional Laboratory Experiences. 4. One semester of residence, except in Special Education for which eight semester hours of residence work is required. (For further information and other regulations, see pp. 37-39).

## PSYCHOLOGY

## 111 General Psychology 3 sem. hrs.

Scientific study of behavior. Motivation, emotion, abilities and interests, personality, hereditary and environmental influences, learning and remembering, observing and attending. Emphasis is upon general principles. Required in general education.

## 115 Educational Psychology 3 sem. hrs.

Training for prospective high-school teachers in the use of psychology as a guide in the development of young people, with special emphasis on learning. Students who have had Education 102 may not take this course for credit. Prerequisite: Psychology 111.

201 Psychology of Adolescence 2 sem. hrs.
(Formerly 222)
Principles of psychology applied to understanding the characteristics and problems of adolescence. Prerequisite: Psychology 115 or Education 102.

## 230 Business and Industrial Psychology 2 sem. hrs.

(Formerly 211)
Application and extension of psychological facts and principles to the problems of human relations and human engineering in business and industry, including product distribution. Prerequisite: Psychology 111.

## 231 Social Psychology 2 sem. hrs.

(Formerly 212)
Behavior of people in groups; in particular, the behavior of local clubs, corporations, and governments; the formation of public opinion and the use of propaganda; the methods used in the organization and development of morale. Prerequisite: Psychology 111.

## 232 Mental Hygiene 3 sem. hrs.

(Formerly 234)
Nature and extent of mental health problems, application of psychological principles to the development of positive mental health in the individual and to the problems in the community, introduction to counseling, psychotherapy, and severe personality problems. Prerequisite: Psychology 115 or Education 102.

## 299 <br> Independent Study in Education and/or Psychology 2 to 4 sem. hrs.

(Formerly 295)
Provides opportunity for exceptional students to engage in independent pursuit of special areas, under supervision. Careful planning and evaluation will be required. Open to juniors and seniors who have outstanding records of achievement. Approval of Head of Department of Education and Psychology necessary.

## 301 Child Psychology 3 sem. hrs.

(Formerly 421)
Study of available research on the motor, mental, and emotional development; growth of understanding; and personality of children during pre-adolescent and adolescent years; application to problems of guidance.

## 330 Experimental Psychology 3 sem. hrs.

(Formerly 225)
Simple experiments in the psychology laboratory to give appreciation of the problems of control in the scientific study of behavior. Three class periods per week-two lectures and one laboratory period plus additional laboratory assignments. Prerequisite: Psychology 111.

## 331 Psychological Measurement 3 sem. hrs.

(Formerly 229)
Use and interpretation of psychological test results with emphasis on the quantitative approach. Group and individual tests are studied and demonstrated. Students have practice in giving, scoring, and interpreting standardized tests. Meets the requirements of psychological testing for students in special education.

## 333 Readings in Psychological Research 1 sem. hr.

(Formerly Ed. 405 and 406)
Study and evaluation of current research dealing with the student's major field of interest. The course acquaints the student with research in many phases of psychology from the nursery school through the community college.

334 Research Projects in Psychology 3 sem. hrs.
(Formerly 401)
Appreciation and understanding of the experimental and statistical approaches to the study of the learning human being. Laboratory work will be the basic procedure. Prerequisite: Psychology 115.

345 Case Work in Behavior Problems 2 sem. hrs.
(Formerly 235)
Making case studies: interviewing, using records, and case reporting. To be taken with Student Teaching. Prerequisite: Psychology 232.

346 Psychology of Exceptional Children 2 sem. hrs. (Formerly 327)
Behavior of children who deviate from the usual because of physical, mental, or other handicaps. Prerequisite: Psychology 232 and 331.

348 Mental Retardation 3 sem. hrs.
Introduction to medical, psychological, sociological, and educational aspects of mental retardation. Prerequisite: Education 102 or Psychology 115.

349 Psychology of the Mental Deviate 3 sem. hrs. (Formerly 411)
Personality, general behavior patterns, and educational possibilities of mentally deficient and gifted children. Prerequisite: Education 102 or Psychology 115.

## ENGLISH

## TEACHING STAFF

Head of the Department: Victor E. Gimmestad. Office: Schroeder Hall 223.

Professors: Howard I. Fielding, Victor E. Gimmestad, Ruth Henline, Milford C. Jochums, Dale B. Vetter.

Associate Professors: Ferman Bishop, George R. Canning, Merton A. Christensen, John M. Heissler.

Assistant Professors: Robert B. Brome, Carrol B. Cox, Pauline Drawver, Robert L. Duncan, C. J. Gianakaris, Grace Hiler, Verna A. Hoyman, Wayne V. Huebner, Ruth C. Huggins, Virgil R. Hutton, Lucile Hyneman, Kenneth L. Ledbetter, Denton B. May, Harry E. Preble, Taimi M. Ranta, Dorothy O. Soellner, Ruth Stroud, Donald F. Templeton, Raymond W. Tudor, Lela Winegarner.

Instructors: Jill Bohlander, Eileane H. Fielding, Jane Maddocks, Creston D. Munger, Richard L. Newby, Peter A. Parmantie, Roger E. Parsell, E. Gwendolyn Williams, David C. Wood.

The courses offered by the Department of English fall into three categories: those for the general education program, those for first and second fields, and those for specialized aspects in English. A few general statements about the offerings in English follow.

Students who on the entrance test demonstrate excellence in English may take proficiency tests for credit in one or two semesters of Language and Composition (English 101 and 102).

Students who make a satisfactory score on the English placement test may choose to elect a year of foreign language in lieu of Language and Composition 101.

English 101 or a foreign language in lieu of it (as provided above) is prerequisite to all subsequent courses in English, except that English 163 and 165 may be taken concurrently with English 101.

English 102 is prerequisite to all subsequent courses in English except English 163 and 165.

Students who contemplate the possibility of entering graduate study in English, either at this University or another, may find it advisable to take at least one year in a foreign language, preferably French or German. Such students may also find it advisable to take a sequence of courses leading to a concentration in literature of England and America, children's literature, or professional studies in English. Such a program should be worked out in consultation with the Head of the Department.

## GENERAL EDUCATION COURSES

The English requirement in group I is ordinarily met with English 101, 102, and 103 or 104. Courses which may be used for group V are the following: $145,163,219,222,234,247,251,255,286$.

FIRST FIELD REQUIREMENTS IN ENGLISH
Courses in English must total 38 semester hours, exclusive of 101 and 102. The following courses in English are required: 104, 110, 130, 145, 150, 241, 243.

Not more than 8 semester hours may be elected from these courses in English: 163, 165, 166, 267, 295.

## FIRST FIELD REQUIREMENTS IN ENGLISH-JOURNALISM

Courses in English plus one course in Industrial Arts must total 46 semester hours, exclusive of English 101 and 102. The following courses are required: English 103 or 104, 110, 130, 145, 150, 163, 165, 166, 241, 243, 267, 295; Industrial Arts 153.

## SECOND FIELD REQUIREMENTS IN ENGLISH

Courses in English must total 27 semester hours, exclusive of 101 and 102. The following courses are required: 103 or $104,110,130,241,243$.

English 163, 267, and 295 may not be included in the 27 semester hours required.

## SECOND FIELD REQUIREMENTS IN JOURNALISM

A student taking a first field in English may complete a second field in Journalism by earning a minimum of 54 semester hours in English, journalism, and certain specified electives in other departments. Courses specifically required will include English 163, 165, 166, 267, 295, and Industrial Arts 15316 semester hours total.

An additional 8 semester hours must be elected from the following: English 145, 219, 234, 247, and 255; Business Education 112 and 131; Education 334; Social Sciences 368; and Speech 123, 160, 261, and 324.

## COURSES IN ENGLISH

101 Language and Composition 3 sem. hrs.
Essentials of college composition: organization, paragraph and sentence structure, proficient use of grammar and mechanics. Written essays and reading of prose examples. Does not count toward a first or second field in English.

102 Language and Composition 3 sem. hrs.
A continuation of the work done in English 101 with attention to specific expository forms. Written essays and reading in significant prose works. Does not count toward a first or second field in English.

103 Literature and Composition 2 sem. hrs.
Basic forms of literary art-lyric, narrative, and dramatic. Written essays, mainly analytical, to reinforce the study. Reading in significant literary works.

## 104 Introduction to Literature 3 sem. hrs.

Critical and analytical study of the chief literary forms: prose and poetry; narrative, lyric, and dramatic manners of treatment. Readings in exemplary works of literture. Written essayscitical and analytical.

110 Masterpieces of English Literature 3 sem. hrs.
A chronological study of the main movements in English literature. Designed to give the student a historical rationale for more advanced work. Readings of entire works representative of the movements.

## 130 Masterpieces of American Literature 3 sem. hrs.

A chronological study of the main movements in American literature. Designed to give the student a historical rationale for more advanced work. Readings of entire works representative of the movements.

## 145 Advanced Exposition 2 sem. hrs.

(Formerly 161)
Extensive writing based on interests of students. One research paper.
150 Ancient Literature 3 sem. hrs.
Selected readings in ancient Greek, Roman, and Oriental literatures in translation studied for an appreciation of their contributions to modern culture. Students who have had the former World Literature 254 may not take this course for credit.

## 163 History and Principles of Journalism 3 sem. hrs.

History and development of journalism in the United States, with special attention to leading journalists in the past. Survey of the entire field of journalism today with emphasis upon desirable journalistic standards and the place of journalism in modern education.

## 165 Elementary Reporting 3 sem. hrs.

Introduction to the technique of the news story and to the duties and responsibilities of the reporter. Students do a limited amount of reporting for The Vidette, and by the end of the term are qualified to assume the duties of staff reporters.

## 166 Advanced Reporting 3 sem. hrs.

Practical course in which students review their work of the previous semester, study feature writing, and serve as reporters for The Vidette. Prerequisite: English 165 or equivalent.

170 Literature for the Elementary School 3 sem. hrs. (Formerly 171)
Prose and verse for kindergarten and the eight grades. Selections from folk and modern literature, both fanciful and realistic, and emphasis upon well-known materials. This course is also offered as Library 170. Students who have had the former Folk Literature for Children 102 may not take this course for credit.

## 213 Medieval English Literature 3 sem. hrs.

English literature during the Middle Ages, from the fourth century to the fourteenth, exclusive of Chaucer. Readings in translation from the Middle English. Prerequisite: English 110.

## 214 Literature of the Renaissance 3 sem. hrs.

English literature during the fifteenth and sixteenth centuries: the dramatic literature exclusive of Shakespeare, prose and poetic writings. Prrequisite: English 110.

## 215 Literature of the Seventeenth Century 3 sem. hrs.

Prose and verse writers of the seventeenth century exclusive of Milton. Chief attention to the Cavalier and Metaphysical poets and major prose works. Prerequisite: English 110.

## 216 Literature of the Eighteenth Century 3 sem. hrs.

English literature from 1660 to 1780, the Augustan Age. Chief attention to Dryden, Pope, Swift, and Johnson. Prerequisite: English 110.

## 217 Literature of the Romantic Period 3 sem. hrs. (Formerly 213)

Writers of England, 1780 to 1830 -the Roinantic reaction. Chief attention to Wordsworth, Coleridge, Byron, Shelley, Keats, and Scott. Students who have had the former Survey of English Literature 122 may not take this course for credit. Prerequisite: English 110.

## 218 Literature of the Nineteenth Century 3 sem. hrs. (Formerly 214)

Literature of the Victorian Period with some reference to social, political, and philosophical trends. Emphasis on the poetry of Tennyson, Browning, Arnold, and the Pre-Raphaelites. Some attention to the chief prose writers of the period. Students who have had the former Survey of English Literature 122 may not take this course for credit. Prerequisite: English 110.

219 Contemporary English Literature 3 sem. hrs. (Formerly 215)
Major English writers of the twentieth century with attention to contemporary trends in thought and expression. Prerequisite: English 110.

## 220 Chaucer 3 sem. hrs.

A literary and linguistic study of the major writings of Chaucer, chiefly The Canterbury Tales. Readings in Middle English. Prerequisite: English 110.
222 Shakespeare 3 sem. hrs.
(Formerly 219)
Representative comedies, histories, and tragedies studied in chronological order. Attention to the period of Shakespeare and to the development of his art. Prerequisite: English 110.

## 224 Milton 3 sem. hrs.

Chief prose writings and poems of John Milton. Chief attention to Paradise Lost. Includes John Bunyan. Prerequisite: English 110.

## 231 American Literature, 1607 to 18303 sem. hrs.

Colonial American writers and Neo-Classicism in America from the beginnings of American literature to Washington Irving. Prerequisite: English 130.

## 232 American Literature, 1830 to 18703 sem. hrs.

The main figures and movements of nineteenth-century American literature. Emphasis on Hawthorne, Melville, Poe, Emerson, and Whitman. Prerequisite: English 130.

233 American Literature, 1870 to 19203 sem. hrs.
The rise of realism and naturalism in America. Emphasis on Crane, Norris, James, Howells, Dreiser, and the chief poetic movements. Prerequisite: English 130.
234 Contemporary American Literature 3 sem. hrs. (Formerly 231) Present-day movements in American literature. Emphasis on Eliot, Pound, Hemingway, Faulkner, and their contemporaries. Prerequisite: English 130.

## 241 Growth and Structure of the English Language 3 sem. hrs.

Growth and structure of English designed to help students understand language change and current problems in spelling, grammar, usage, and vocabulary.

## 243 English Grammar 3 sem. hrs.

(Formerly 275)
Historical and descriptive study of the sentence and its parts to give the student background for teaching accepted usage in language, punctuation, sentence structure, and essential grammar.

## 247 Creative Writing 2 sem. hrs.

(Formerly 233)
Opportunity for creative writing of various kinds, as narrative, drama, verse, criticism, editorial, and the article, determined largely by each student's individual interest.

## 251 Literature of the Bible 3 sem. hrs.

(Formerly 253)
Chief literary forms of the Old Testament from the point of view of their artistic achievement.

## 252 European Literature to 17003 sem. hrs.

Chief movements and works of Continental European literature from the Middle Ages to the Renaissance. Designed to give the student a general knowledge of the literary heritage of Europe. Readings in translation.

[^7]Practical study of the problems involved in editing a school newspaper. Special attention to editorial writing, copy reading, proofreading, headline writing, newspaper make-up, graphic reproduction, and advertising. Two class periods per week plus a maximum of one and one-half hours of laboratory work on The Vidette. Time to be arranged with the instructor. Prerequisite: English 165.

## 271 Literature for Lower Grades 3 sem. hrs.

Traditional fairy and folk tales, myths, legends, fables, and modern fanciful and realistic stories for kindergarten-primary grades. Also offered as Library 271. Does not repeat materials of English 170. Students who have had the former English 202 may not take this course for credit.

## 272 Literature for Upper Grades 3 sem. hrs.

Literature especially selected for middle and upper grades. Also offered as Library 272. Does not repeat materials of English 170.

## 273 Verse for Children 3 sem. hrs.

Verse for use in the kindergarten and eight elementary grades. Students who have had the former English 203 may not take this course for credit.

285 The Drama 3 sem. hrs.<br>Dramatic forms as literature from Greece to modern times. Readings in translation.

286 The Novel 2 sem. hrs.
(Formerly 244)
The novel in English with emphasis on the nineteenth and twentieth centuries.

## 290 Language Arts for the Elementary School 2 sem. hrs.

(Formerly 278)
Guidance for the elementary teacher in devising experiences in thinking, speaking, writing, and listening. Ways of improving pupils' vocabularies, usage, spelling, and mechanics of writing. Development of criteria for pupil selection of books, magazines, movies, and radio programs. Acquaintance with the professional literature of the field.

## 295 The High-School Annual 2 sem. hrs.

(Formerly 260)
Theoretical study of editorial and business problems of the high-school annual-staff organization, graphic reproductions, photography, layout, advertising, circulation, budgeting, materials, editorial problems, and art themes. Examination of high-school annuals at the various cost levels.

296 Literature for the High School 2 sem. hrs.
(Formerly 276)
Literature for use in secondary school English programs. Criteria for selection. Acquaintance with the professional literature of the field.

## 297 Language and Composition in the Secondary School 2 sem. hrs.

(Formerly 277)
The teaching of oral and written composition in the junior and senior high school. Emphasis on devices for improving pupil vocabularies, diction, and mechanics. Reading of professional literature in the field.

300 Methods in Research in English 2 sem. hrs.
(Formerly 400)
Problems peculiar to literary history, English language, and the teaching of English. Students are encouraged to take this course early in their graduate study.

## 310 History and Development of the English Language 3 sem. hrs.

(Formerly 401)
Historical approach to the development of the English language. To help student and prospective teacher discover reasons behind the meanings, spellings, syntax, and usage of contemporary English.

311 Old English 3 sem. hrs.
(Formerly 403)
The elements of Old English grammar, with selected readings.
317 Nineteenth-Century English Prose 2 sem. hrs. (Formerly 425)
Chief prose writers of the century and their contribution to the thought of the present time.
332 Nineteenth-Century American Literature 3 sem. hrs.
(Formerly 430)
Concentration upon the great literary figures to the middle of the century, especially those usually taught in high school-Poe, Hawthorne, Emerson, Melville, Longfellow, and Whitman. To show how these men represent important movements in American life and thought.

337 Literature of the Midwest 2 sem. hrs.
(Formerly 434)
The chief writers of the Midwest, especially Illinois.
370 Studies in Children's Literature 3 sem. hrs. (Formerly 470)
Advanced study in children's literature including critical history, evaluation and selection of significant books particularly from the literary standpoint. Materials for kindergarten through grade eight. Prerequisite: Course work in children's literature or proficiency demonstrated by examination.

372 Problems in Children's Literature 3 sem. hrs. (Formerly 472)
Advanced study in the broader fields of books for children including work on problems of special interest for individual students. Evaluation based on principles of child growth and development and curricular use. Materials for kindergarten through grade eight. Prerequisite: Course work in children's literature or proficiency demonstrated by examination.
375 Studies in Literature for Adolescents 3 sem. hrs. (Formerly 475)
Advanced study in literature for adolescents. Evaluation and selection of significant books, and appraisal of recent books. Materials for grades seven through twelve. Prerequisite: One related course (English 272, English 296, Library 214), or proficiency demonstrated by examination.
382 Literary Criticism 3 sem. hrs.
(Formerly 402)
Survey of critical and esthetic theory designed to aid the prospective teacher in evaluating ancient and modern literature, in broadening and refining literary tastes, and in conveying to the students a knowledge of the purposes of literature.
390 Recent Research in the Teaching of the Language Arts 2 sem. hrs. (Formerly 490)
Critical study of current practice and research in the teaching of the language arts in the elementary school.
395 Problems in the Teaching of English 2 sem. hrs. (Formerly 492)
Critical examination of current practice and research in the teaching of language, literature, and composition in the high school. To aid the teacher in meeting individual problems.

## FOREIGN LANGUAGES

## TEACHING STAFF

Head of the Department: Frank D. Horvay. Office: Schroeder Hall 304. Professor: Frank D. Horvay.
Associate Professors: Allie Ward Billingsley, Brigitta J. Kuhn, Norman Luxenburg, Henry R. Manahan, Jose A. Rodriguez.

Assistant Professors: Helen Chiles, Margery Ellis, Wolfgang Pfabel, Eric W. Smithner.

Instructors: Jeanne A. Foreman, Louise B. Mini, Mercedes M. Oberlender.

A student who has had only one year of high school French, German, Latin, Russian, or Spanish usually begins college work in that language with the first course. A student who has had two years in high school usually begins with the second year course. If a student has had three or more years of foreign language, he should consult the Head of the Department of Foreign Languages for the suitable course.

A student must complete both semesters of the first year of foreign language, that is, courses numbered 111 and 112 , to receive credit.

A student completing a first or second field in a foreign language may be exempt from one or more of courses 111, 112, and 115 on the basis of work completed in high school.

The requirements for a resource person in a foreign language are listed on page 49.

## GENERAL EDUCATION COURSES

To meet requirements for groups I and V, students may choose from the courses numbered 111, 112, 115, 116 and also Latin 117 and 118.

FIRST FIELD REQUIREMENTS IN FRENCH, GERMAN, RUSSIAN, AND SPANISH
Courses in French, German, Russian, and Spanish must total 30 to 32 semester hours. The following specific courses are required: 111, 112, 115, 116.

## FIRST FIELD REQUIREMENTS IN LATIN

Courses in Latin must total 30 to 32 semester hours, depending on what material has been covered in high school Latin. The following specific courses are required: $115,116,117,118$.

SECOND FIELD REQUIREMENTS IN FRENCH, GERMAN, RUSSIAN, AND SPANISH
Courses in French, German, Russian, and Spanish must total 22 to 24 semester hours depending on whether high school French, German, Russian, or Spanish is accepted in lieu of Courses 111 and 112. The following specific courses are required: $111,112,115,116$.

SECOND FIELD REQUIREMENTS IN LATIN
Courses in Latin must total 22 to 24 semester hours, depending on what material has been covered in high school Latin. The following specific courses are required: $115,116,117,118$.

## COURSES IN FOREIGN LANGUAGES

Courses are listed under six topics: General Courses, French, German, Latin, Russian, and Spanish,

## GENERAL COURSES

## 299 Independent Honor Study 1-6 sem. hrs.

Intensive work in a special area of the student's first or second field. Each individual protect is to culminate in a comprehensive written report and/or examination. Open only to resident students who have achieved superior academic records and who have demonstrated ability to profit from independent study. A maximum of six hours of credit in independent study may be applied toward graduation. Prerequisite: Permission of the instructor, the Head of the Department, and the Dean of the Faculty.

## 300 Research in Foreign Languages 1-3 sem. hrs.

Supervised work in a foreign literature, in comparative language studies, or in educational materials for a foreign language laboratory. Assignments will depend on the preparation and interest of the student. By arrangement with the Head of the Department of Foreign Languages.

## FRENCH

## 111 and 112 First-Year French Each 4 sem. hrs.

Pronunciation; essentials of grammar; exercises in hearing, speaking, and writing French; reading of material of graded difficulty.

## 115 and 116 Second-Year French Each 4 sem. hrs.

Class reading of short stories, plays, and essays. Grammar review, oral and written composition. Prerequisite: French 112 or two years of high-school French.

## 203 French for the Elementary School 3 sem. hrs.

Practical exercises in the preparation and the use of classroom materials, such as drills, games, songs, etc. Discussion of objectives, methods, and techniques. Demonstration and use of audiovisual aids. Observation of classes. Required of a Resource Person in French in Elementary Education. Prerequisite: French 116; a French pronunciation test.

## 211 Modern French Novel 4 sem. hrs.

Class and collateral reading of the novel of the nineteenth and twentieth centuries. Prerequisite: French 116.

## 216 Modern French Drama 4 sem. hrs.

(Formerly 215 and 216)
Class and collateral reading of the drama of the nineteenth and twentieth centuries. Prerequisite: French 116.

## 217 Civilisation française 2 sem. hrs.

French people and institutions as background for the French teacher. Prerequisite: French 116.
221 and 222 Survey of French Literature Each 4 sem. hrs.
French literature from the seventeenth to the twentieth century, with special emphasis on classical tragedy and comedy. Prerequisite: French 116.

## 231 Advanced French Composition and Conversation 3 sem. hrs.

Reading of short excerpts from modern writers; written and oral composition; dictation and memorizing of short passages. Prerequisite: French 116.

## 232 French Lyric Poetry 3 sem. hrs.

Reading of French Lyrics from the 16th century to the present; study of the schools of poetry; explication de texte. Oral reading. Prerequisite: French 116.

## 301 French Romanticism 3 sem. hrs.

Reading of poetry, novels, plays, criticism, stories, and history. Class conducted in French. Prerequisite: French 221, 222.

## 302 French Classicism 3 sem. hrs.

Reading of plays by Corneille, Racine, and Moliere, and of selections from other seventeenth century writers. Class conducted in French. Prerequisite: French 221, 222.

318 Moliere 3 sem. hrs.
Major comedies of Moliere, together with some of the farces and comedies ballets.

## GERMAN

## 111 and 112 First-Year German Each 4 sem. hrs.

Pronunciation, essentials of grammar, reading of easy German stories, oral and written exercise based on the material read.

## 115 and 116 Second-Year German Each 4 sem. hrs.

Class reading of modern German prose and poetry, beginning with simpler stories and progressing in the second semester to at least one work each of Lessing, Schiller, and Goethe. Grammar review; oral and written composition. Prerequisite: German 112 or two years of high-school German.

## 211 German Novel 4 sem. hrs.

Rapid reading in the novel and Novelle from Goethe to the present time. Prerequisite: German 116.

## 216 German Drama 4 sem. hrs.

Lectures and readings of representative works of outstanding German, Austrian, and Swiss dramatists. Prerequisite: German 116.
221 and 222 Survey of German Literature Each 4 sem. hrs.
Class and collateral reading of representative works of the most important authors from the eighth century to the present time. Prerequisite: German 116.

## 231 Advanced German Conversation and Composition 3 sem. hrs.

Written and oral composition and conversation based on building adequate vocabulary and pronunciation. Extensive laboratory work in listening and pronouncing is an integral part of this course. Prerequisite: German 116.

## 232 German Lyric Poetry 4 sem. hrs.

Reading and interpretation of German lyric poetry from 800 A.D. to the present. Prerequisite: German 116.

## 302 and 303 Schiller and Goethe Each 3 sem. hrs.

Classic German literature with emphasis on the dramas of Goethe and Schiller. Lectures, collateral reading, and reports. Prerequisite: Two courses in German beyond 116.

## 318 Goethe's Faust 3 sem. hrs.

A critical study of Parts I and II of Faust as literature and as an expression of Goethe's philosophy. Lectures, assigned readings, and reports. Prerequisite: Two courses in German beyond 116

## LATIN

## 111 and 112 Beginning Latin Each 4 sem. hrs.

The equivalent of the first two years of high-school Latin, planned especially for students who wish to be Latin teachers but had no opportunity for Latin study in high school.

## 115 Intermediate Latin 4 sem. hrs.

Review of Latin fundamentals. Practice in writing simple Latin. Reading beginning with graded Latin selections and progressing to selections from Cicero's orations. Prerequisite: Latin 112 or two years of high-school Latin.

## 116 Vergil 4 sem. hrs.

Aeneid, Books I-VI: the purpose, sources, merits, and fame of the Aeneid, and its referneces to other classic epics; poetical syntax, figures of speech, prosody, and mythology in the Aeneid. Prerequisite: Latin 115 or three years of high-school Latin.

## 117 Latin Prose Composition 4 sem. hrs.

Systematic review of Latin inflections and syntax with written and oral exercises in the use of Latin constructions. Some practice in writing connected discourse based on Latin authors. Prerequisite: Latin 116 or three years of high-school Latin.

## 118 Livy 4 sem. hrs.

Selections from Livy's History of Rome. Study of some of the most important phases of the history of the Roman people. Livy as an historian and writer. Prerequisite: Latin 117.

## 211 Cicero's Essays 4 sem. hrs.

Reading of Cicero's De Senectute and De Amicitia. An appreciation of these essays as literary masterpieces, both in language and in thought. Discussion of the treatment of the same themes by other writers, ancient and modern. Syntax and figures peculiar to Cicero. Prerequisite: Latin 117 or 118.

## 212 Plautus and Terence 4 sem. hrs.

Intensive reading of at least three plays of Plautus and Terence and a recognition of the importance of these plays as examples of Roman dramatic art. Peculiarities of meter, style, and syntax. Special readings on the history of the theater, the development of the Roman drama, and the influence of Plautus and Terence on later drama. Prerequisite: Latin 118.

## 222 Martial's Epigrams 2 sem. hrs.

Reading of Latin poetry and a study of social life under the emperors. Prerequisite: Latin 118.

## 225 Latin-English Etymology 2 sem. hrs.

Relation of the various Indo-European languages to each other, the place of Latin and English among these languages, and the history of the Latin elements in English. Some treatment of the subject of semantics, especially as it applies to Latin words in English. Recommended for all who have a first or second teaching field in Latin. Prerequisite: Eight hours of college Latin.

## 226 Roman Civilization 2 sem. hrs.

Background for the Latin teacher. An introduction to Roman topography is included. Recommended for all who have a first or second teaching field in Latin.

## 231 Ovid, Metamorphoses 3 sem. hrs.

Translation, scansion, and reading of the passages most helpful to the teacher of Latin. Prerequisite: Five years of Latin or Latin 118.

## 232 Selections from Caesar's Gallic Wars 3 sem. hrs.

Selections of historical importance from Caesar. Emphasis on problems connected with the reading and translation of Latin; a thorough review of Latin forms and syntax. Prerequisite: Latin 118.

## 301 and 302 History of Latin Literature Each 3 sem. hrs.

(Formerly 401 and 402)
Development of Latin literature from its beginning to the close of the Republic. Works of the writers of the Empire period. Translation of representative selections.

## 315 Horace: Odes and Epodes 2 sem. hrs.

(Formerly 415)
Translation and the metrical reading of Latin Poetry. Life in the Augustan Age and Horace's philosophy of life.

## 316 Horace: Satires and Epistles 2 sem. hrs.

(Formerly 416)
Continuation of Latin 315.

## 317 Seneca's Tragedies 2 sem. hrs.

Troades and the Medea; the influence of Seneca on later writers. Prerequisite: Latin 118.
318 Tacitus 2 sem. hrs.
Agricola and Germania. An introduction to the prose of the Silver Period. Prerequisite: Latin 118.

# 319 Selections From the Letters of Cicero and Pliny 2 sem. hrs. 

(Formerly 417)
Translation of some of the letters of Cicero and Pliny, with special attention to the details of Roman life and manners revealed by them in two periods of Roman history. Study of the letters both as human documents and as literary compositions.

## RUSSIAN

## 111 and 112 First Year Russian Each 4 sem. hrs.

The Cyrillic alphabet; pronounciation; essentials of grammar; aural and oral exercises to secure mastery of basic Russian speech patterns; reading for accurate comprehension; simple written exercises based on the reading.

## 115 and 116 Second Year Russian Each 4 sem. hrs.

Reading of simple Russian prose. Practice on pronunciation both in class and in laboratory. Some review of grammar. Prerequisite: Russian 112 or two years of high school Russian.

## 211 and 212 Russian Prose Fiction Each 4 sem. hrs.

Reading of short stories and novels by such authors as Pushkin and Chekhov. Prerequisite: Russian 116.

## 215 Russian Drama 4 sem. hrs.

Class and collateral reading of representative Russian plays by Gogol, Ostrovsky, Chekhov, and others. Prerequisite: Russian 116.

## 221 and 222 Survey of Russian Literature 4 sem. hrs.

Background information for teachers of Russian on life, culture, and institutions in Czarist Russia as well as in the Soviet Union. Prerequisite: Russian 116.

## 231 Advanced Russian Conversation and Composition 3 sem. hrs.

Written and oral composition, conversation based on building adequate vocabulary and pronunciation. Extensive laboratory work in listening and pronouncing is an integral part of this course. Prerequisite: Russian 116.

## SPANISH

## 111 and 112 First-Year Spanish Each 4 sem. hrs.

Pronunciation, essentials of grammar, exercises in hearing, speaking, and writing simple Spanish, reading of graded material.

## 115 and 116 Second-Year Spanish Each 4 sem. hrs.

Class reading of modern Spanish prose-short stories, plays, novels, and essays. Review of grammar; oral and written composition. Prerequisite: Spanish 112 or two years of high school Spanish.

## 203 Spanish for the Elementary School 3 sem. hrs.

Practical exercises in the preparation and the use of classroom materials, such as drills, games, songs, etc. Discussion of objectives, methods, and techniques. Demonstration and use of audiovisual aids. Observation of classes. Required of a Resource Person in Spanish in Elementary Education. Prerequisite: Spanish 116 and a pronunciation test.

## 211 Modern Spanish Novel 4 sem. hrs.

Class and collateral reading from the works of representative Spanish and Spanish-American novelists of the nineteenth and twentieth centuries. Prerequisite: Spanish 116.

## 216 Modern Spanish Drama 4 sem. hrs.

Representative works of the outstanding Spanish and Spanish-American dramatists of the nineteenth and twentieth centuries. Prerequisite: Spanish 116.

# 217 Civilización española 1 sem. hr. <br> Life, customs, and institutions of the Spanish people as background material for the teacher of Spanish. Prerequisite: Spanish 116. 

## 218 Civilización Hispanoamericana 1 sem. hr.

Present-day cultural background of Spanish speaking countries in the Americas. Prerequisite: Spanish 116.

221 and 222 Survey of Spanish Literature Each 4 sem. hrs.
Spanish literature from the beginning through the Golden Age and until the present. Prerequisite: Spanish 116.

## 231 Advanced Spanish Composition and Conversation 3 sem. hrs. <br> Composition and conversation based on modern Spanish prose with special attention to idioms and the finer points of grammar. Prerequisite: Spanish 116.

## 242 Survey of Spanish-American Literature 3 sem. hrs

(Formerly 222)
Introduction to the works of Spanish-American authors with emphasis on the nineteenth and twentieth centuries. Prerequisite: Spanish 116.

301 Spanish-American Literature 3 sem. hrs.
(Formerly 401)
History of Spanish-American literature from the colonial period to the present day, studied according to nationality. Special emphasis on material suitable for use in secondary schools,

309 Spanish Phonetics 2 sem. hrs.
A scientific study of the speech sounds of Castilian Spanish.
332 Spanish Drama of the Siglo De Oro 3 sem. hrs. (Formerly 232)
Class and collateral reading of selected plays from the great dramatists of Spain's Golden Age. Prerequisite: Spanish 216.

392 Problems in the Teaching of Spanish 2 sem. hrs.
Re-evaluation of traditional methods of teaching Spanish. Examination and evaluation of modern techniques. Problems related to the teaching of Spanish in general. Problems related to specific methods and techniques.

# FRENCH <br> (See Foreign Language) 

## GEOGRAPHY

(Including Geology)

## TEACHING STAFF

Head of the Department: Arthur W. Watterson. Office: Schroeder Hall 125.

Professors: Paul J. Brand, Edna M. Gueffroy, Clarence W. Sorensen, Arthur W. Watterson.

Associate Professors: Kermit M. Laidig, James E. Patterson.
Assistant Professors: Richard R. Hart, Elsie A. Schmidt, Thomas K. Searight, Stanley B. Shuman, John E. Trotter, David L. Wheeler.

## GENERAL EDUCATION COURSES

To meet requirements for groups III and V, students may choose from the following courses in Geography: 100, 105, 110, 115, 175, 180, 205. For group V, Geography 120, 130, 135, 215, 220, 225, 230, 240, 245, 255, 260, 265.

## FIRST FIELD REQUIREMENTS IN GEOGRAPHY

Courses in Geography must total 32 semester hours. The following specific courses are required: $110,115,130,175,180,215,300,315$. Students must take a minimum of eight hours in regional geography courses.

SECOND FIELD REQUIREMENTS IN GEOGRAPHY
Courses in Geography must total 22 semester hours. The following specific courses are required: $110,115,130,175,215$.

## SECOND FIELD REQUIREMENTS IN GENERAL SCIENCE

A student who has a first teaching field in Geography may elect this second field by taking the following 26 semester hours: Biological Sciences 121, 190, and two courses of 122, 123, 191, 192; Physical Sciences 112, 170, 171.

## COURSES IN GEOGRAPHY

100 Introduction to Earth Science 3 sem. hrs.
(Formerly 101)
A survey of the features of the physical environment. Designed to develop an understanding of the earth as the home of man.

## 105 Earth and Space 2 sem. hrs.

(Formerly 125)
Galaxies, stars and their evolution, and the planets of our solar system; emphasis on theories dealing with origins of the universe and solar system.

## 110 Weather 2 sem. hrs.

(Formerly 115)
Weather elements, processes, and types. Significance of these in weather observation, analysis, charting, and forecasting basic to understanding of weather and climate. Field trip to U.S. Weather Bureau Station when practicable.

115 Climate 2 sem. hrs.
(Formerly 116)
Climatic elements and controls. Classification of climates, climatic types, and world climatic regions. Prerequisite: Weather 110.

## 120 Geography of Soils 3 sem. hrs.

(Formerly 150)
Non-technical study of the major soil groups; pedogenesis, characteristics, and classification. Distribution and importance in major world regions and in underdeveloped areas; emphasizes soils in the United States. Field excursions.

## 125 Maps in Education 2 sem. hrs.

(Formerly 118)
Role of maps in the classroom. Exercises in map reading, examination of map types, and elementary map reproduction. Techniques of map purchasing for classroom use.

## 130 Economic Geography 3 sem. hrs.

(Formerly 113)

[^8]135 Geography of Peoples of the World 3 sem. hrs. (Formerly 103)
A regional study of the peoples of the world based upon the various culture patterns as related to earth environment. Not recommended for students with a first or second field in Geography.

## 140 Conservation Clinic 1 sem. hr.

(Formerly 121)
An intensive week of field and classroom work in conservation.
175 Physical Geology 4 sem. hrs.
(Formerly 111)
Nature, properties, and structure of the earth's crust and development of the landscape. Three hours of lecture; two hours of laboratory. A one-day field trip required.

180 Historical Geology 4 sem. hrs.
(Formerly 112)
Origin and structure of the earth. History of the earth as revealed by the rock strata and the evolution of plant and animal life as shown by fossils. Practical experience with topographic maps and geologic folios. Three hours of lecture; two hours of laboratory. A one-day field trip is required. Prerequisite: Geography 175.
200 Elements of Political Geography 3 sem. hrs.
(Formerly 216)
An introduction to the physical, cultural, and economic elements of political geography. A review of selected contemporary world problems with emphasis on geographic backgrounds. A consideration of the contribution of geography to a study of current affairs.

205 Conservation of Natural Resources 3 sem. hrs. (Formerly 219)
Conservation of soil, water, forest, wildlife, mineral, and recreational resources in the United States. Resource characteristics, problems, and conservation practices are considered. Field trips when feasible.

## 210 Historical Geography of the United States 2 sem. hrs.

(Formerly 213)
A survey of the geography of earlier times. Emphasis on exploration and initial settlement in distinctive regions of the United States.

## 215 Geography of the United States 3 sem. hrs.

(Formerly 201)
Survey of the major regions of the United States in terms of contemporary physical, cultural, and natural resource patterns. Emphasis upon land use associations in both rural and urban areas.

220 Geography of Illinois 2 sem. hrs.
(Formerly 212)
A regional survey of the physical environment and patterns of human occupance including agriculture, industry, transportation, and utilization of mineral resources.

225 Geography of Canada and Alaska 2 sem. hrs. (Formerly 205)
Survey of natural regions; resources, economic activities, settlement patterns, interregional and international relations.

230 Geography of South America 3 sem. hrs.
(Formerly 215)
A regional analysis of the major political units with emphasis on physical, cultural, and economic characteristics.

240 Geography of Europe 3 sem. hrs.
(Formerly 217)
Europe based upon regions. Present importance and possible future of each in the light of geographic conditions. Attention to the present nations of Europe, their relationships to each other and to the United States.

## 245 Geography of the Soviet Union 2 sem. hrs.

(Formerly 214)
Emphasis on physical resource patterns and their significance to the industrial and agricultural land use and to the general economic and political development.
250 Geography of Africa 2 sem. hrs.
(Formerly 226)
Regional study of Africa. Emphasis upon the patterns of society as related to the natural environment. The role of Africa in world affairs.

A survey of the countries, regions, and peoples of Asia. Detailed study of selected regions, specific localities, and special problems.

## 260 Geography of Australia and New Zealand 2 sem. hrs.

(Formerly 225)
Physical and cultural resource patterns. Emphasis on the population sustaining capacity and economic importance of Australia and New Zealand.

## 265 Geography of the Pacific Islands 2 sem. hrs.

(Formerly 209)
Physical patterns, natural resources, current problems, and strategic importance. Interpretation of economic activities in relation to the natural environment of the islands and the cultural background of the people.

## 270 Field Survey of Illinois 3 sem. hrs.

(Formerly 230)
A reconnaissance survey of the distinctive regions of Illinois, including the Chicago industrial area, the major agricultural regions, mining districts, various state parks, and other areas of special interest. Opportunity for intensive study of local units of occupance.

## 275 Life of the Geologic Past 2 sem. hrs.

Development of plants and animals from the most primitive early forms to modern types. Discussion includes the origin, classification, and evolution of life.

## 300 Cartography and Graphics 3 sem. hrs.

(Formerly 395)
Graphic representation of statistical data, including compilation and preparation of various types of maps and graphs. Map projections, scales, symbolisms, dot maps, and their use.

## 306 Regional and Areal Studies 1-9 sem. hrs.

An intensive study of particular lands, environments, cultures, and peoples. May be given in cooperation with other departments, on or off the campus. The areas to be studied, participating departments, and credit hours available in the several departments, will be announced each time the course is offered.

## 310 Techniques of Field Work 3 sem. hrs.

(Formerly 403)
Techniques of mapping and interpretation of the phenomena of the natural and cultural landscapes. Most of the time in the field doing original study and mapping.

## 315 Methods and Concepts in American Geography 2 sem. hrs.

(Formerly 324)
A survey of selected professional publications designed to acquaint the student with the development of basic concepts and methods in American Geography. Enables the student to evaluate geographic viewpoints and approaches in research and teaching.

325 World Population and Resources 3 sem. hrs.
(Formerly 420)
Population growth and resource distribution and its impact on national policy, levels of living, education, food supply, and mineral resources.

## 335 Industrial Geography 3 sem. hrs.

(Formerly 405)
Distribution and locational factors influencing distribution of American industries. Relationship of American industries to world industrial patterns.

## 340 Climates of the Continents 2 sem. hrs.

(Formerly 401)
Climates of the various continents and associated controls. Analysis of classifications of climate and problems of climatic classification.

## 345 Problems in Conservation 3 sem. hrs.

Investigation of specific problems in conservation of soils, water, forests, wildlife, minerals, and recreational land. These problems are explored in their complex national, regional, and local contexts.


#### Abstract

355 Foreign Field Surveys 2-8 sem. hrs. (Formerly 410) Studies of selected rural and industrial districts. Experiences with intensive and reconnaissance types of geographic investigation. Emphasis on participation in actual field surveys as an approach to understanding the lands and peoples of various areas of the world.


360 Organization of Instructional Materials in Geography 2 sem. hrs. (Formerly 408)
Practical experience in selection and organization of geographic materials for instructional purposes. Basic principles and professional techniques. Nature of distinctly geographic understandings. Individual work in area of student's choice.

## 375 Economic Geology 3 sem. hrs.

Earth materials of economic importance. Characteristics and uses of common metallic and nonmetallic minerals and rocks. Prerequisite: Geography 175.

# GERMAN <br> (See Foreign Languages) 

## HEALTH

(See Biological Sciences)

## HEALTH AND PHYSICAL EDUCATION

teaching staff (men)
Head of the Department: Burton L. O'Connor. Office: McCormick Gymnasium 103A.

Professors: Arley F. Gillett, Eugene L. Hill, Burton L. O'Connor.
Associate Professors: Joseph T. Cogdal, James E. Collie, Howard J. Hancock.

Assistant Professors: Buford H. Bass, Warren S. Crews, Paul F. Dohrmann, Harold E. Frye, Archibald Harris, Carl D. Heldt, J. Russell Steele, Edwin G. Struck.

Instructors: Jack D. Butt, Richard F. Irvin, Robert W. Koehler, Robert L. Metcalf, Jimmy D. Scott, Wayne O. Truex.
teaching staff (women)
Head of the Department: Ellen Davis Kelly. Office: McCormick Gymnasium 104.

Professors: Bernice G. Frey, Miriam Gray, Ellen Davis Kelly, Gwen Smith.

Associate Professors: Barbara C. Hall, Margaret L. Jones.
Assistant Professors: Ruth Bird, Edna Engberg, Eva R. Parrish.
Instructors: Ellen M. Abshire, G. Laurene Mabry, Marjorie F. Martin, Kaye McDonald, Joanna Midtlyng, Marita L. Nelson, Beverly Ann Nichols, Shirley Perry, Barbara Sailors, Bobbie Nell Schmidt, Evelyn L. Schurr, Alma Stoddard, Donna Jo Workman.

GENERAL EDUCATION COURSES
To meet the requirements of Physical Education in group IV, students may take any courses numbered 101 through 149.

MEN: FIRST FIELD REQUIREMENTS IN HEALTH AND PHYSICAL EDUCATION
Courses in Health and Physical Education must total 37 semester hours. The following specific courses are required: $150,151,152,153,154,181$, $182,208,242,282,341$. It is recommended that one semester hour in folk and social dance be completed.

## MEN: SECOND FIELD REQUIREMENTS IN HEALTH AND PHYSICAL EDUCATION

Courses in Health and Physical Education must total 24 semester hours. The following specific courses are required: 150, 151, 152, 181, 182, 208, 242, 341.

WOMEN: FIRST FIELD REQUIREMENTS IN HEALTH AND PHYSICAL EDUCATION
Courses in Health and Physical Education must total 37 semester hours. The following specific courses are required: $120,123,155,156,157,158,160$, $162,181,182,222$ or $223,235,242,282,341,347,360,383$.

WOMEN: COMPREHENSIVE FIELD REQUIREMENTS IN HEALTH AND PHYSICAL EDUCATION
A second teaching field is not necessary with the comprehensive field. Courses in Health and Physical Education must total 50 semester hours. The following specific courses are required: $120,123,155,156,157,158,160$, $162,180,181,182,222,223,235,236,242,282,341,347,360,383$.

WOMEN: SECOND FIELD REQUIREMENTS IN HEALTH AND PHYSICAL EDUCATION
Courses in Health and Physical Education must total 22 semester hours. The following specific courses are required: $120,155,156,157,158,160$, 222 or $223,235,236,242,341,360$.

MEN AND WOMEN: SECOND FIELD REQUIREMENTS IN DANCE EDUCATION
Courses must total 22 semester hours. Related electives, selected from at least two fields outside of first teaching field, should be approved by the Head of the Department of Health and Physical Education for Women.

For women with a first field in health and physical education, the following specific courses are required: 124 or 125,361 , a minimum of 5 hours elected from dance courses beyond those required for the first field, and 13 hours of guided electives in related fields.

For all other students, the following specific courses are required: 120 or $121,123,124$ or $125,160,162,181,182,282,361$, and 4 hours of approved electives in related fields.

## COURSES IN HEALTH AND PHYSICAL EDUCATIONMEN AND WOMEN

Courses for men only are designated with an $M$ after the course title. Courses for women only are designated with a W after the course title. Where no designation is made, courses are offered for both men and women.

Physical Education courses required for all students for general education must be chosen from courses numbered 101 through 149.

100 Adapted Recreational Activities--M ½ sem. hr. (Formerly 119) Provision for the recreational and activity needs of those limited in participation by ruling of the University Health Service.

101 Archery--M 1⁄2 sem. hr.
(Formerly 105)
Beginning course in archery stressing individual skills.
102 Badminton--M 1/2 sem. hr.
(Formerly 103)
Practical course in badminton arranged primarily for the beginning player.
103 Basketball--M ½ sem. hr.
(Formerly 118)
Emphasis is upon the play of the individual and development of individual skills.
106 Golf-M ½ sem. hr.
(Formerly 109)
Practical course in golf arranged primarily for the beginning player.
107 Gymnastics I ½ sem. hr.
(Formerly 111)
Training in gymnastics, apparatus, stunts, and tumbling.
108 Gymnastics II ½ sem. hr.
(Formerly 112)
Advanced training in gymnastics, apparatus, stunts, and tumbling. Prerequisite: Health and Physical Education 107.

110 Social Games for Recreation--M $1 / 2 \mathrm{sem}$. hr. (Formerly 116) Activities for social gatherings and parties, and entertainment for school and community groups.

111 Softball--M ½ sem. hr.
(Formerly 113)
Practicing the fundamentals of individual and team play.
112 Soccer--M 1/2 sem. hr.
(Formerly 114)
Emphasis is upon the play of the individaal and development of individual skills.
113 Tennis--M ½ sem. hr.
(Formerly 101)
Beginning course in tennis stressing individual skills.
114 Tennis--M ½ sem. hr.
(Formerly 102)
Advanced course in tennis with emphasis on singles and doubles play. Open only to those who have completed Health and Physical Education 113.

115 Touch Football--M ½ sem. hr.
(Formerly 117)
Practice and the development of fundamental skills in football types of games.
116 Volleyball--M ½ sem. hr.
(Formerly 107)
Practicing the fundamentals of individual and team play.
117 Weight Lifting--M ½ sem. hr.
(Formerly 142)
Beginners course in weight lifting stressing fundamentals and variety of experiences for body conditioning and improvement.

## 118 Beginning Wrestling--M ½ sem. hr. Instruction and practice in beginning skills of wrestling.

(Formerly 115)

## 119 Advanced Wrestling--M ½ sem. hr.

(Formerly 141)
Instruction and practice in the advanced skills and techniques of wrestling. Prerequisite: Health and Physical Education 118.

## 120 Social, Square, and Folk Dance 1 sem. hr.

Development of knowledge and skill in folk and national dances, American country dances, and social dancing. Cultural influences in the folk arts.

## 121 Intermediate Square and Round Dance 1 sem. hr.

Participation in a variety of American square and round dances for schools and adult recreational groups. Opportunities for practice in square dance calling. Knowledge of cultural role of the American square dance. Prerequisite: Health and Physical Education 120.

## 122 Intermediate Social and Folk Dance 1 sem. hr.

Knowledge and skill in social dance and international folk dances beyond the beginner's level. Understanding of historical and national character of the dances of a people. Prerequisite: Health and Physical Education 120.

## 123 Beginning Modern Dance 1 sem. hr.

Basic movement vocabulary with exploration in movement sequences. Individual and group studies in elements of composition. Emphasis on kinesthetic awareness of movement

## 124 Intermediate Modern Dance 1 sem. hr.

More advanced techniques with special emphasis on the development of movement themes as motivated by specific content. Understanding the use of art principles in choreography and accompaniment. Prerequisite: Health and Physical Education 123.

## 125 Dance Composition 1 sem. hr.

Experience in several forms of group and individual composition in dance, including a study of elements of production: choreography, costume, lighting, and stage design; utilization of varied types of accompaniment. Prerequisite: Health and Physical Education 124.

127 Beginning Swimming 1 sem. hr.
For non-swimmers and beginners who must be in shallow water. Special attention to individual needs.

## 128 Beginning Swimming (continued) 1 sem. hr.

Continued instruction for beginners not yet skilled enough for deep water. Prerequisite: Health and Physical Education 127.

129 Intermediate Swimming and Diving 1 sem. hr.
For deep water swimmers to learn and develop skill in elementary diving and front crawl, back crawl, side stroke, and breast stroke. Opportunity to earn Red Cross Intermediate and Swimmers certificates.

## 130 Advanced Swimming and Diving 1 sem. hr.

For the advanced swimmer to refine basic strokes and learn advanced strokes, diving, and to increase endurance. Introduction to synchronized swimming.

## 131 Life Saving and Water Safety 1 sem. hr.

Instruction in life saving and water safety methods.

## 133 Selected Experiences--W 1 sem. hr.

Individual, dual, and team sports; body mechanics; tumbling and apparatus; other activities selected according to student interests, needs, and proficiencies.

## 140 Adapted Recreational Activities--W 1 sem. hr.

Provision for the recreational and activity needs of those limited in participation by ruling of the University Health Service.

## 150 Introduction to Physical Education--M 2 sem. hrs.

(Formerly 183)
A survey course directed toward a basic understanding of the function of physical education in public schools and the elements involved in the professional preparation of teachers.

## 151 and 152 Physical Education Activities--M 2 sem. hrs.

Basic seasonal developmental activities.
153 and 154 Physical Education Activities--M 2 sem. hrs.
Continuation of Health and Physical Education 151 and 152, extending the student's knowledge and skill in a wider variety of activities.

## 155 and 156 Physical Education Activities--W 2 sem. hrs. <br> Development of fundamental skills in individual and team activities.

## 157 and 158 Physical Education Activities--W 2 sem. hrs.

Continuation of Health and Physical Education 155 and 156, extending the student's knowledge and skill in a wider variety of activities.

## 160 Fundamentals of Rhythm and Movement 2 sem. hrs.

Development of the fundamental skills in rhythmic activities, including the exploration of rhythmic forms and movement. Prerequisite: Health and Physical Education 120.

## 162 Dance for the Elementary School 1 sem. hr.

Development of knowledge and skill in teaching creative rhythmic activities for elementary-school children.

## 172 Camp Leadership 2 sem. hrs.

Experience in woodcraft skills, crafts, outdoor cookery, overnight trips, and other basic camp craft skills. Training for camp counselorships.

## 173 Introduction to Recreation 3 sem. hrs.

Background, development, scope, and present status of recreation. Standards, problems, and relationships involved in public, private, and coordinated school-community programs. Survey, analysis, and evaluation of resources including areas, facilities, and leadership. The program; methods of organizing and conducting group activities.

## 174 School-Community Recreation 3 sem. hrs.

Special problems in the development of school and community recreation. Practical work with such activities as games, party and outing events, crafts with simple materials, group singing, story-telling, hobby interests, and other leisure pursuits. Practical work in planning and conducting recreation.

## 180 First Aid 2 sem. hrs.

Prevention and care of accidents and sudden illness in the home, school, and community. Students successfully completing this course will receive standard and advanced Red Cross certificates.

## 181 Anatomy and Physiology 3 sem. hrs.

The gross structure and physiology of the human body with particular attention to the skeletal and muscular systems.

## 182 Anatomy and Physiology 3 sem. hrs.

A continuation of Health and Physical Education 181. Prerequisite: Health and Physical Education 181.

## 192 Methods and Materials in Physical Activities--W 3 sem. hrs.

Techniques of playing, teaching, and officiating team and individual sports. Planned primarily for the untrained teacher in physical education.

## 201 Sports Officiating--M 2 sem. hrs.

Instruction and practice in officiating at athletic contests in football, cross country, and other seasonal sports. Prerequisite: Health and Physical Education 153 and 154.

## 202 Sports Officiating--M 2 sem. hrs.

Instruction and practice in officiating at athletic contests in basketball, baseball, and other seasonal sports. Prerequisite: Health and Physical Education 153 and 154.

## 203 and 204 Officiating--W 1 sem. hr.

Instruction and practice in officiating activities offered in the intramural program. Ratings will be conducted by the local board of women officials and certification to all who qualify will be granted by the national boards: the United States Field Hockey Association Umpiring Committee and the Women's National Officials Rating Committee.

## 208 Intramural Management--M 3 sem. hrs.

(Formerly 231)
Practical course, involving the management of intramural activities. Each student will be required to participate in the administration of the intramural program.

## 210 Baseball Coaching--M 3 sem. hrs.

(Formerly 206)
Professional preparation of coaches in baseball.
211 Basketball Coaching--M 3 sem. hrs.
(Formerly 207)
Professional preparation of coaches in basketball.
212 Football Coaching--M 3 sem. hrs.
(Formerly 205)
Professional preparation of coaches in football.
213 Track and Field--M 3 sem. hrs.
(Formerly 208)
Professional preparation of coaches in track and field.
221 Physical Education for Elementary Schools 3 sem. hrs.
Factors essential to program planning in physical education on the elementary level. This course is arranged primarily to aid teachers in service to meet the problems involved in planning the elementary physical education program. Students who have completed Health and Physical Education 222 or 223 may not take this course for credit.

## 222 Physical Education for Lower Grades 2 sem. hrs.

Factors essential to program planning in physical education in grades one through four. Types and progressions of activities; some participation in activities and in teaching.

## 223 Physical Education for Upper Grades 2 sem. hrs.

Factors essential to program planning in physical education in grades five through eight. Types and progressions of activities; some participation in activities and in teaching.

## 224 Physical Education for Junior High Schools 2 sem. hrs.

Factors essential to program planning in physical education for the junior high school. Types and gradations of activities included.

## 230 The Aquatic Program 2 sem. hrs.

Analysis of swimming skills and methods of teaching acquatic activities in beginning, intermediate, and advanced classes; organization and administration of the swimming program; supervision of pool and waterfront; opportunity for holders of Senior Life Saving certificates to complete Water Safety Instructors' certification. Prerequisite: Swimmer rating certified by Head of Department.

231 Swimming for Handicapped Children 1 sem. hr. (Formerly 247)
Study of adaptations in techniques of swimming for handicapped children. Actual experience will be provided in cooperation with the Red Cross in teaching swimming to the handicapped children in the community. Must have Water Safety certificate.

## 235 and 236 Participation in Teaching Techniques--W l sem. hr.

Introduction to teaching techniques through directed observation and participation. Prerequisite: Health and Physical Education 157 and 158 or concurrent registration.

## 242 Principles of Physical Education 2 sem. hrs.

Basic biological, sociological, and psychological facts and principles underlying physical education; aims and objectives of physical education and its place in American life.

## 280 Instructor's First Aid 1 sem. hr.

Methods and materials for teaching first aid and prevention and care of accidents and sudden illness in the home, school, and community. Students who have had Health and Physical Education 281 may not take this course for credit. Prerequisite: Health and Physical Education 180

## 281 Instructor's First Aid 3 sem. hrs.

Methods and materials for teaching first aid and prevention and care of accidents and sudden illness in home, school, and community. It includes standard, advanced, and instructor's Red Cross course content. Students who have had Health and Physical Education 180 or 280 may not take this course for credit. Offered in extension only.

## 282 Kinesiology 3 sem. hrs.

Analysis of human motion based on anatomic and mechanical principles. Application of these principles in the teaching of physical education activities. Prerequisite: Health and Physical Education 181 and 182.

## 299 Independent Honor Study 1-6 sem. hrs.

Intensive work in a special area of the student's first or second field. Each individual project is to culminate in a comprehensive written report and/or examination. Open only to resident students who have achieved superior academic records and who lave demonstrated ability to profit from independent study. A maximum of six hours of credit in independent study may be applied toward graduation. Prerequisite: Permission of the Instructor, the Head of the Department, and the Dean of the Faculty.

304 Teaching of Sports Activities 2 sem. hrs.
(Formerly 404)
Teaching methods, officiating, organization, selection and care of equipment, and safety procedures for selected sports usually taught during the fall and winter months.

305 Teaching of Sports Activities 2 sem. hrs.
(Formerly 405)
Teaching methods, officiating, organization, selection, and care of equipment, and safety procedures for selected sports usually taught during the spring and summer months.

## 321 The Elementary School Physical Education Program 2 sem. hrs.

 (Formerly 402)Principles and purposes of physical education in elementary schools. Current trends in program planning, recent research, methods of evaluation, school-community cooperation. Prerequisite: Health and Physical Education 221, 222, or 223.

## 340 History of Physical Education 2 sem. hrs.

The relationship, from ancient to modern times, between physical education and factors in society: economic, political, social, educational, and religious.

341 Organization and Administration of Physical Education 3 sem. hrs. Factors essential to the administration and program development of physical education in elementary and secondary schools,

## 347 Evaluation of Motor Performance 3 sem. hrs. <br> (Formerly 390)

Analysis of motor performance, using objective tests, subjective ratings, and achievement tests. Construction and evaluation of knowledge tests. Basic methods of interpreting test scores.

## 360 Dance Techniques 2 sem. hrs.

Selection of materials for teaching various types of dance; a study of progression in teaching each type; grade placement; practice in perfecting dance techniques. Prerequisite: Health and Physical Education 160.

## 361 History of Dance 3 sem . hrs.

History and development of dance as a cultural medium from primitive times to the present. Understanding of the function of dance in education, and the philosophies and social changes underlying current trends in theatrical and social forms of dance.

## 362 Principles of Performance 3 sem. hrs.

Principles governing public performance in physical education; dance, swimming, gymnastics, and other physical education activities. A survey of costuming, lighting, accompaniment, and related problems in production.

## 365 Teaching of Rhythmic Activities 2 sem. hrs.

Evaluation of dance methods for elementary and secondary school situations; familiarity and appraisal of sources of dance materials; practice in advanced techniques in dance; possibilities in dance accompaniment; opportunities for teaching various types of dance. Prerequisite: Health and Physical Education 360.

## 366 Studies in Dance 2 sem. hrs.

(Formerly 409)
Kinesiological understanding of movement; theory of dance; creative techniques; progressive experiences in individual and group composition; studies in design, rhythm, and dynamics.

## 367 Problems in Dance 2 sem. hrs.

(Formerly 410)
Current problems in the teaching of dance on all levels, in the administration of dance curricula, in the planning and direction of dance recitals and demonstrations, in the organization and supervision of dance clubs and extra-curricular activities.

## 372 Camp Experience with Physically Handicapped 3 sem. hrs.

(Formerly 346 )
Actual experience as a counselor in a summer camp for physically handicapped children. Conferences and discussions on planning the child's day; general organization of activities, camp equipment, and program. A student may enroll for credit a second time. Prerequisite: Approval of the Director of the Division of Special Education and Head of the Department of Health and Physical Education for men or women.

## 373 Workshop in Recreation and Camping 3 sem. hrs.

(Formerly 422)
Preparation of materials for use in recreation and camping situations; sources for obtaining materials, and information; cooperative work among various departments and organizations. Includes crafts, music, story telling, and dramatics.

## 383 Body Mechanics and Corrective Procedures 2 sem. hrs.

Methods, materials, and activities appropriate for the body mechanics and adapted physical education program in elementary and secondary schools. Prerequisite: Health and Physical Education 282.

## 384 Diagnosis and Treatment of Athletic Injuries 2 sem. hrs.

Designed to familiarize the coach with the symptoms of common athletic injuries, their immediate treatment and care. Prerequisite: Health and Physical Education 182.

## 385 Physical Defects-Survey and Rehabilitation 3 sem. hrs. <br> Physical defects of handicapped children and procedures used in their rehabilitation. For those preparing to teach special classes of physically-handicapped children. Includes special services, equipment, and activities used in the rehabilitation program. Lecture and laboratory. Also offered as Biological Sciences 385. Prerequisite: Health and Physical Education 282.

## 386 Physical Education and Recreation for Handicapped Children

 2 sem. hrs.(Formerly 445)
Materials and methods involved in planning recreational programs for handicapped children and adolescents. Designed primarily for teachers of exceptional children and physical education. Prerequisite: Health and Physical Education 383 or Psychology 346, and 2-3 hours from Health and Physical Education 221, 222, 223, 224, or 321.

## HISTORY

(See Social Sciences)

## HOME ECONOMICS

TEACHING STAFF
Head of the Department: Florence Davis. Office: Industrial Arts Building 102.

Professors: Florence Davis, Blossom Johnson
Associate Professor: Jacqueline Q. Karch
Assistant Professors: Margaret K. Bradford, Jeannie H. James, Hattie C. Lundgren, Alma B. Rousey.

Instructors: Mary E. Boaz, Charlotte M. Upton.

Home Economics 110 is not required of students who enter the department after their Freshman year.

FIRST FIELD REQUIREMENTS IN HOME ECONOMICS
Courses in Home Economics must total 44 semester hours. The following specific courses are required: $106 ; 110 ; 111 ; 113 ; 120 ; 121$ and/or $122 ; 123$; 124; 130; 131; 132; 212; 236; 238; 240; 244; Art 111.

## COMPREHENSIVE FIELD REQUIREMENTS IN HOME ECONOMICS

A second teaching field is not necessary with the comprehensive field.
Courses in Home Economics (or related fields, as shown below) must total 56 semester hours. The following specific courses are required: 106; 110; six hours of $111,113,316 ; 120 ; 121$ and/or $122 ; 123 ; 124 ; 130 ; 131 ; 132$; $211 ; 212 ; 231 ; 235 ; 236 ; 238 ; 240 ; 244 ; 250$; Art 111. The following courses may be used toward the 56 semester hours required: Art 109, 116, 126, 140, 211; Industrial Arts 122; Social Sciences 166, 261, 262.

## SECOND FIELD REQUIREMENTS IN HOME ECONOMICS

This field emphasizes the area of family-life education. Courses in Home Economics must total 24 semester hours. The following specific courses are required: 106, 111 or $113,120,121$ or $122,130,131,234,238$.

## COURSES IN HOME ECONOMICS

## 106 Nutrition 2 sem. hrs.

Survey of the nutritional needs of the college student and his family. Includes knowledge of composition of foods to insure wise consumer buying. Parallels or precedes Home Economics 111. Special section, with laboratory, for students in Special Education; emphasis on nutrition in the school lunch program with units suitable at each grade level.

## 110 Introduction to Home Economics 1 sem. hr.

Survey of the field of home economics to present a working philosophy for the prospective teacher and to enrich the personal and social life of the freshman student.

## 111 Meal Planning 3 sem. hrs.

Selection, preparation, and service of breakfasts, luncheons, and teas for the family. Includes preservation of foods. Planned for students with little or no previous high school courses in meal preparation. Parallels or follows Home Economics 106.

## 113 Meal Planning 3 sem. hrs.

Selection, preparation, and service of dinners for the family; includes nutritive needs, consumer buying, and meal management. Prerequisite: For first and comprehensive field, Home Economics 111.

## 120 Introduction to Textiles 2 sem. hrs.

Emphasizes the consumer approach to the intelligent judgment of textile products for the home and for the wardrobe; how the current market situation affects values; also the importance of finishes, standardization, and labels.

## 121 Beginning Clothing 3 sem. hrs.

Basic fundamentals of the selection of fabrics and patterns; the interpretation and use of commercial patterns; the basic principles of construction and fitting; work with easy-to-handle textures. For those who have had very little or no experience.

## 122 Clothing 3 sem. hrs.

For students with some clothing experience. More difficult patterns, fabrics, and construction techniques than used in Clothing 121.

## 123 Costume Design 2 sem. hrs.

Essentials of design applied to dress. Discriminating judgment in selection of appropriate clothes for wardrobe needs of the individual.

## 124 Clothing 3 sem. hrs.

Advanced pattern study and experience working with a variety of fabrics and fitting problems. Prerequisite: Home Economics 122.

## 130 The Child 3 sem. hrs.

Prenatal care; the physical, mental, emotional, and social behavior of young children in the home and other situations involving children.

## 131 Marriage and the Family 3 sem. hrs.

Marriage and the family with emphasis on mate selection, preparation for marriage, legal aspects of marriage, and present day family life. Einphasis on the home as it affects the development of the family and its individual members.

## 132 Home Management 3 sem. hrs.

Principles of management in the home; management of money, time, and energy in relation to family living.

## 211 Nutrition and Dietetics 2 sem. hrs.

Principles of nutrition applied to the family. Practice in planning, adjusting and preparing dietaries for specific needs of individuals. Prerequisite: Home Economics 106.

## 212 Family Health and Home Nursing 2 sem. hrs.

Application of the scientific principles of nutrition to the needs of the child at different ages. Includes a unit in home nursing. Prerequisite: Home Economics 106.

## 221 Tailoring 3 sem. hrs.

Suit and coat making, fully lined, using recognized tailoring techniques; emphasizes the complete costume and comparative ready made products. Prerequisite: Home Economics 124.

## 231 Family Relationships 2 sem. hrs.

Factors that promote satisfaction in democratic family living and the interrelationships of the family and the community. Includes the teaching of Family Relationships in secondary schools.

## 234 Home Management Experiences 3 sem. hrs.

Residence in the home management houses for the purpose of instruction in all phases of homemaking responsibilities such as preparation, planning, and service of meals; housekeeping duties; other social and managerial problems which may be related to the home. Required of Home Economics minors and open also to non-home economics students, whose requests to enter the course must be made to the Head of the Department of Home Economics. Prerequisite: Home Economics 111 or 113.

## 235 Consumer Economics 2 sem. hrs.

Problems of the consumer in buying goods and services to satisfy needs and wants; methods of improving consumer buying.

## 236 Home Management House 3 sem. hrs.

Principles underlying management of a home are put into practice during nine weeks residence in the home management house. There is direct experience in management and sharing in the various activities involved in the group living of the student in residence. Prerequisite: Home Economics 111, 113, 131 and 132.

## 237 Slip Covers and Draperies 2 sem. hrs.

Experience in the application of art principles to interior decoration through the selection and construction of draperies and slip covers. Students furnish their own projects. Prerequisite: Some sewing experience.

## 238 Housing and Home Furnishing 3 sem. hrs.

Significance of community planning; recognition of issues considered in determining housing for the American family; room relationship, financing, modern methods and materials. The home environment and its part in developing a satisfactory home with reference to efficiency, beauty, comfort, and economy.

## 240 Household Equipment 2 sem. hrs.

Principles which should guide in the selection, operation, care, and convenient arrangement of equipment in the home.

## 244 Philosophy and Organization of Vocational Home Economics 3 sem. hrs.

Growth and development of the home economics movement and the philosophy and organization of vocation programs. Includes observation and participation in typical high school home economics classes.

## 250 Child Development and Guidance 2 sem. hrs.

Significant areas of research as it contributes to the understanding and guidance of child behavior.

## 299 Independent Honor Study 1-6 sem. hrs.

Intensive work in a special area of the student's first or second field. Each individual project is to culminate in a comprelensive written report and/or examination. Open only to resident students who have achieved superior academic records and who have demonstrated ability to profit from independent study. A maximum of six hours of credit in independent study may be applied toward graduation. Prerequisite: Permission of the instructor, the Head of the Department, and Dean of the Faculty.

301 Evaluation in Home Economics 2 sem. hrs.
(Formerly 401)
Examination of various concepts of evaluation and basic principles involved. Study of methods and techniques. Opportunity to work on individual problems.

## 304 Curriculum Development in Home Economics 3 sem. hrs. <br> (Formerly 404)

Principles of curriculum development as applied to Home Economics. Attention given to organization, methods, materials, and evaluation in relation to type of program and age level. Opportunity to work on individual or group problems.

## 313 Food Customs Around the World 2 sem. hrs. <br> (Formerly 213)

An appreciation course considering the food customs of other nations and how they have influenced American meal patterns. Includes laboratory preparation.

## 316 Food Investigations 3 sem. hrs.

Opportunity is given the student to do preliminary research into various cookery problems according to needs and interests. Evaluation of present accepted methods is challenged and revised. Prerequisite: Home Economics 111 or 113.

## 320 Demonstration Cookery 2 sem. hrs.

(Formerly 220)
Development of desirable techniques and standards for the use of the demoustration method of presentation of food preparation. Critical evaluation of individual and team demonstrations suitable for use in teaching, club work and adult education classes. Prerequisite: Home Economics 113.

## 322 Problems in Clothing 3 sem. hrs.

Economics of clothing; children's clothing. Advanced construction experiences including pattern making or draping. Prerequisite: Home Economics 124.

## 323 Advanced Textiles 2 sem. hrs.

Survey of recent developments in the textile field, particularly the man-made fibers and their products. Attention given to the textile market situation's significance to the consumers. Prerequisite: Home Economics 120.

## INDUSTRIAL ARTS

## TEACHING STAFF

Head of the Department: Charles B. Porter. Office: Industrial Arts Building 14.

Professors: William D. Ashbrook, John L. Johnston, Charles B. Porter.
Assistant Professors: Claude A. Bell, Roger D. Blomgren, C. M. Hammerlund, Charles H. Hartman, Francis C. Kenel, Williard J. McCarthy.

Instructors: Leven M. Dowdall, Max L. Honn, Frank E. Sharkey, William V. White.

## GENERAL EDUCATION COURSE

To meet requirements for group V , students may choose Industrial Arts 127.

FIRST FIELD REQUIREMENTS IN INDUSTRIAL ARTS
Courses in Industrial Arts must total 37 semester hours. The following specific courses are required: $111 ; 113$ or 114 or $211 ; 108$ or $127 ; 121 ; 132$;
$141 ; 151 ; 200$ or 201 ; three courses from 133,142 or 241 or $242,152,223$. At least 8 semester hours must be completed in three of the following areas: drawing, electricity, graphic arts, metals, woods.

## COMPREHENSIVE FIELD REQUIREMENTS IN INDUSTRIAL ARTS

A second teaching field is not necessary with the comprehensive field.
Courses in Industrial Arts must total 60 semester hours. The following specific courses are required: $108,111,113,114$ or $211,121,127,132,133$, 141,142 or 241 or $242,151,152,200$ or 201, 223. Related courses in Art and in other departments (approved by the Head of the Department of Industrial Arts) may be included in the 60 semester hours. At least 8 semester hours must be completed in four of the following areas: drawing, electricity, graphic arts, metals, woods.

## SECOND FIELD REQUIREMENTS IN INDUSTRIAL ARTS

Courses in Industrial Arts must total 24 semester hours. The following specific courses are required: 111,113 or 114 or $211,121,132,141,200$ or 201. At least 8 semester hours must be completed in one of the following areas: drawing, electricity, graphic arts, metals, woods.

## SECOND FIELD REQUIREMENTS IN SAFETY AND DRIVER EDUCATION

Courses in Industrial Arts and specified related fields must total 20 semester hours. The following specific courses are required: Industrial Arts 171, 272, 373, 374; 375 and/or 376; electives to be chosen from Psychology 232, Health and Physical Education 180, Psychology 232, Social Sciences 252.

## COURSES IN INDUSTRIAL ARTS

Courses in Industrial Arts are considered in areas as follows:
Drawing: 111, 113, 114, 211, 212.
Electricity: 141, 142, 241, 242, 341.
Graphic Arts: 151, 152, 153, 251, 252.
Metals: 132, 133, 231, 232, 233.
Professional Industrial Arts: 108, 200, 201, 300, 301, 302, 303, 305.
Safety and Driver Education: 171, 272, 373, 374, 375, 376.
Woods: 121, 122, 127, 221, 223, 224, 226.

## 108 Structural Design 2 sem. hrs.

Principles of design as applied to creating products for the home or for industry. Actual practice in product design, with emphasis on the form of the product and the material from which it is made.

## 111 Technical Drafting 3 sem. hrs.

Study and practice of the fundamental techniques of the different types of projection and projection instruments used in technical drafting.

## 113 Developmental Descriptive Geometry 3 sem. hrs.

Specialized drafting methods used in sheet metal layout and in the graphical solution of mathematical and structural problems. Prerequisite: Industrial Arts 111.

## 114 Technical Drafting 2 sem. hrs.

Continuation of Technical Drafting 111 extending the students' knowledge and skills in the development of detail, assembly, and special drawing. Prerequisite: Industrial Arts 111.

## 121 General Woodwork 3 sem. hrs.

Fundamental woodworking practices and processes. Emphasis given to analysis and planning of projects and tool maintenance.

## 122 Furniture Upholstering and Finishing 3 sem. hrs.

Fundamental principles and problems of upholstering furniture. These principles are put into practice in the shop laboratory. Methods of finishing and refinishing furniture will be practiced in the laboratory.

## 127 Crafts 2 sem. hrs.

Opportunity for students interested in crafts work to obtain skills and information in the use of hand tools, materials, and processes. Emphasis placed on projects suitable for classroom and recreational activities. Designed to meet the needs of students with no previous school shop experience as well as for students in Industrial Arts.

## 132 General Metalwork 3 sem. hrs.

Basic information, processes, and safety in sheet metal, raised metal, wrought iron, foundry casting, oxy-acetylene welding, and electric welding.

## 133 General Metalwork 2 sem. hrs.

(Formerly 131)
Basic information, processes, and safety in benchwork, machine work, forging, and heat treatment of metals. Prerequisite: Industrial Arts 132.

## 141 Applied Electricity 3 sem. hrs.

Basic theory of electricity and magnetism, including shop practice in the design and construction of electrical projects suitable for use on the secondary school level.

## 142 Residential Wiring 3 sem. hrs.

Planning and installing adequate electric power and lighting systems with particular emphasis on National Electric Code safety requirements as they pertain to wiring materials and methods. Laboratory and field practice in wiring installation.

## 151 Graphic Arts 3 sem. hrs.

General survey of the graphic arts industries. Designed for students with teaching fields in art and industrial arts, as well as for experienced teachers in these fields who wish to gain knowledge and skill in certain graphic arts processes. Students who have had Industrial Arts 153 may not take this course for credit.

## 152 Graphic Arts 2 sem. hrs.

Continuation of Industrial Arts 151. Emphasis on refinement of skills with reference to teaching as a unit in a general shop; projects and units suitable for junior and senior high school work, featuring bookbinding, silk screen printing, layout and lock-up, and related information. Prerequisite: Industrial Arts 151.

## 153 Typography 2 sem. hrs.

Introduction to practical printing problems, with laboratory work in the printshop. History, classification, and physical characteristics of type, with emphasis upon newspaper composition. Students who have had Industrial Arts 151 may not take this course for credit.

## 171 Introduction to Safety Education 3 sem. hrs. (Formerly 271)

General safety course designed to acquaint teachers with the hazards of modern life and the various means for promoting safety in the schools and in the community.

## 200 General Shop 3 sem. hrs.

Practical experience in the basic activities, organization and operation of the industrial arts comprehensive general shop. Prerequisite: Eleven semester hours of industrial arts from three areas.

201 Problems in Industrial Arts 2 sem. hrs.
(Formerly 262)
Problems that confront the teacher of industrial arts in the organization and management of the school shop. Consideration will be given to types of slops, shop planning, purchasing equipment and supplies, maintenance of tools and equipment, shop organization and management, record systems, safety and accident prevention. Prerequisite: Eleven semester hours of industrial arts.

## 211 Architectural Drafting 3 sem. hrs.

The problematic situations of building, with special emphasis on home planning, construction, and naintenance. The laboratory time is spent in discussion and technological solution of problems. Prerequisite: Industrial Arts 111.

## 212 Machine Design 3 sem. hrs.

General mechanisms, cams, gears, and power transmissions. Theoretical principles are applied in the designing of small machines. Prerequisite: Industrial Arts 114.

## 221 Carpentry and Building Construction 3 sem. hrs.

Fundamental principles of carpentry, layout, forming, and assembly. A short unit in masonry work will be included.

## 223 Woodworking 3 sem. hrs.

Operation of woodworking machines with emphasis upon their care, function, and maintenance. Safe practice in use is stressed. Prerequisite: Industrial Arts 121.

## 224 General Finishing 2 sem. hrs.

Finishes ordinarily used in the industrial arts, together with practical laboratory exercises in applying finishing materials.

## 226 Cabinet and Furniture Construction 3 sem. hrs.

Production methods and machine efficiency in the set-up and manufacture of multiple parts. Class projects are designed and constructed on the basis of the factory method. Prerequisite: Industrial Arts 223.

## 231 Machine Shop Practice 3 sem. hrs.

Theory, computations, and practice in setting up and operating following machine tools: lathe, shaper, horizontal and vertical milling machines, surface grinders, cylindrical grinders, and power saw. Includes machining various steels, aluminum, and cast iron, with emphasis on machining threads, tapers, spur gears, and racks. Metal spinning is also included. Prerequisite: Industrial Arts 132.

## 232 Sheetmetal and Welding 2 sem. hrs.

Advanced theory and practice in sheetmetal and welding applied to teaching these units in general metals shop and general shop. Oxy-acetylene and electric welding are included with emphasis on welding and brazing steel, cast iron, bronze, aluminum, and several alloys. Prerequisite: Industrial Arts 132.

## 233 Machine Shop Practice 3 sem. hrs.

Advanced theory and practice in machine design and construction through the use of various steels and castings. Includes set-up computations, individual project design and development, acme threads, square threads, helical gears and racks, machine tool maintenance and adjustment, and individual technical reports. Prerequisite: Industrial Arts 231.

## 241 Electric Motors and Appliances 2 sem. hrs.

Types, characteristics, and operation of resistance heating devices; universal, induction, and synchronous single phase and polyphase a.c. motors. Laboratory practice in testing, maintenance, and repair of electric heating appliances and motors. Prerequisite: Industrial Arts 141.

## 242 Introduction to Radio Servicing 3 sem. hrs.

Continuation of 241. Radio theory followed by laboratory practice in techniques and safety in the maintenance and repair of electronic equipment. Prerequisite: Industrial Arts 141.

## 251 Printing 3 sem. hrs.

Advanced study of letterpress and offset lithography processes. Special emphasis will be placed on job estimating layout, imposition and lock-up, trade customs, paper and ink manufacture and uses, printing plates, automatic press operation, and photo-lithography plate-making. Prerequisite: Industrial Arts 151 or practical experience in printing.

## 252 Printing 2 sem. hrs.

Linotype operation and maintenance. Practice and theory of the line slug composing machine. Prerequisite: Industrial Arts 251 or practical experience in printing.

## 272 Driver Education 3 sem. hrs.

Fundamentals, principles, practices and content of the high school driver education course. Laboratory practice will include experience in teaching beginners to drive in a dual-control car. Students who have had the former Industrial Arts 267 may not take this course for credit. Prerequisite: Industrial Arts 171, valid Illinois operator's license, and approval of the Head of the Department of Industrial Arts.

## 300 Contemporary Industrial Arts Education 2 sem. hrs.

(Formerly 400)
Prominent leaders and analysis of trends in industrial arts education.

## 301 Industrial Arts in the Elementary School 2 sem. hrs.

(Formerly 410)
Educational principles underlying industrial arts and their application in the elementary activity program.
302 Evaluation Techniques in Industrial Education 3 sem. hrs.

# 303 Principles of General Shop Organization 2 sem. hrs. 

(Formerly 421)
Organizing and teaching procedures in the multiple-activity shop.

## 305 Improvement of Instruction in Industrial Arts 3 sem. hrs. <br> (Formerly 505)

Objectives, content, and techniques for improving the teaching of industrial arts.
341 Techniques of Television Servicing 3 sem. hrs.
Technical aspects of television systems. Laboratory practice in circuit analysis, testing, and repair of television receivers. Prerequisite: Industrial Arts 242.

373 Advanced Driver Education and Traffic Safety 3 sem. hrs.
(Formerly 273)
Advanced professional preparation to meet the traffic safety needs of school and community. Prerequisite: Industrial Arts 272.
374 Materials and Methods of Teaching Safety 2 sem. hrs.
(Formerly 332 )
Materials and safety measures appropriate for school, recreation, traffic, and general safety.
375 Traffic Law Enforcement and Engineering 3 sem. hrs.
(Formerly 275)
Functions of traffic engineering, enforcement and administration. Significance of the work of these agencies for the teacher or administrator concerned with traffic safety. Prerequisite: Industrial Arts 272.

376 Problems and Research in Driver Education and Trafic Safety
3 sem. hrs. (Formerly 276)
Overview of problems confronting workers in this field and major research findings applicable to this area. Emphasis given to gaining a better understanding of research data. Planning for greater utilization of research findings in both school and community traffic safety endeavors. Prerequisite: Industrial Arts 272.

## LATIN

(See Foreign Languages)

## LIBRARY

## TEACHING STAFF

Director of Libraries: Robert R. Hertel. Office: Milner Library 309.
Professor: Robert R. Hertel.
Assistant Professors: Hazelle M. Anderson, Lucile Z. Crosby, Dorothy S. Fagerburg, Beryl Galaway, Clara L. Guthrie, Bryant H. Jackson, Ila Karr, Margaret Lawrence, Winifred S. Metzler, Joe B. Mitchell, Eunice H. Speer, Ruth Zimmerman.

Instructors: Julia Bewsey, Laurel A. Grotzinger, William J. Nye, Barbara L. Simon.

The School Library Service program is planned for (1) students who wish to prepare for positions as school librarians in Illinois elementary schools, secondary schools, or in community unit districts, (2) teachers who wish to be fully acquainted with books and materials for children and young people, and (3) school administrators who wish to explore the place of books and libraries in the school's instructional program.

Students who wish to qualify as elementary school librarians should take $170,212,216,252,253$, and 272 , and have student teaching in an acceptable school library. Education 240 and Library 242, 254, and 271 are highly recommended.

Students preparing for the field of community unit-district librarian should take $170,212,213,214,216,252,253,254$, and have student teaching in an acceptable school library. Education 240 is strongly recommended.

Students who are preparing for a junior high school library position should take $170,214,216,252,253,254$, and 272 , and have student teaching in an acceptable school library. Education 240 is strongly recommended.

## SECOND FIELD REQUIREMENTS IN LIBRARY

The following specific courses in Library are required: 212, 213, 214, 252, 253, 254. Also Education 399, Student Teaching, for five semester hours must be done in an acceptable high school library. Education 240 and Social Sciences 261 are strongly recommended.

## COURSES IN LIBRARY

Courses in Library may be used as electives in education.

## 170 Literature for the Elementary School 3 sem. hrs. (Formerly 171)

Prose and verse for kindergarten and the eight grades. Selections from folk and modern literature, both fanciful and realistic, with emphasis upon well-known materials. This course is also offered as English 170.

## 212 The Library as an Information Center 3 sem. hrs.

Familiarity with reference tools and materials for the school; selection principles and aids for reference books; selection and evaluation of periodicals, free and inexpensive pamphlet material; methods of training students to use books and library materials.

## 213 Evaluation of Books for Youth 3 sem. hrs.

Evaluation of informational books for secondary schools stressing importance of authorship, publisher, and physical make-up; principles of book selection; familiarity with selection tools; the use of the book in the curriculum.

## 214 Reading Guidance for Adolescents 3 sem. hrs.

Interest, abilities, and reading characteristics of the adolescent as determined by significant research studies in reading; acquaintance with and appreciation of recreational books on various reading levels; realization of the importance of recreational books in the enriched curriculum; the place of reading in the lives of young people and the methods of stimulating and guiding their reading. Selection and evaluation of series and editions.

## 216 Informational Books 3 sem. hrs.

Acquaintance with and appreciation of the best informational books at varied reading levels; a realization of the place of these books in the enriched curriculum; an ability to evaluate them and to stimulate pupils of the elementary school to read them.

## 242 Experiencing Books Through Speech Activities 3 sem. hrs.

Book-inspired activities for pupils in the elementary school designed to develop appreciation of literature through creative dramatics, story telling, choral reading, discussion, reporting, and reading aloud, with emphasis on observation and participation. Prerequisite: Speech 110 and English or Library 271 or 272. This course is also offered as Speech 242.

## 252 Processing of Library Materials 3 sem. hrs.

Acquiring and preparing of library materials for use and circulation. Instruction and practice in classification and cataloging. The importance of the card catalog as a teaching tool and as an index to all library materials.

## 253 School Library Functions 3 sem. hrs.

Standards of library service. Planning, organizing, administering, and publicizing the school library.

## 254 Library in Society and the School 3 sem. hrs.

The development of libraries, their educational and cultural role and place in the school.

## 271 Literature for Lower Grades 3 sem. hrs.

Traditional fairy and folk tales, myths, legends, fables, and modern fanciful and realistic stories for kindergarten-primary grades. Also offered as English 271. Does not repeat materials of Library 170.

## 272 Literature for Upper Grades 3 sem. hrs.

Literature especially selected for middle and upper grades. Also offered as English 272. Does not repeat materials of Library 170.

## MATHEMATICS

TEACHING STAFF
Head of the Department: Clyde T. McCormick. Office: Schroeder Hall 104.

Professors: Douglas R. Bey, Francis R. Brown, Clyde T. McCormick, T. E. Rine.

Assistant Professors: Albert H. Eckert, Elinor B. Flagg, Hal M. Gilmore, Kenneth A. Retzer, James E. Rowe.

Instructors: Adrian Baucom, A. Matthew Bazik, Lynn H. Brown, Conrad E. Carroll.

## GENERAL EDUCATION COURSES

To meet requirements for group V , students may choose from the following courses in Mathematics: 107, 108, 110.

## FIRST FIELD REQUIREMENTS IN MATHEMATICS

Courses in Mathematics must total 32 semester hours. The following specific courses are required: $110 ; 112 ; 115 ; 116$; two courses selected from 312, $313,315,316$; and 10 semester hours of Mathematics courses numbered 200 or more. One course in geometry numbered 200 or more is required. With approval of the Head of the Department of Mathematics, superior students may omit Mathematics 110 and 112.

## SECOND FIELD REQUIREMENTS IN MATHEMATICS

Courses in Mathematics must total 24 semester hours. The following specific courses are required: $110 ; 112 ; 115 ; 116$; two courses selected from 312, $313,315,316$; and 2 semester hours of Mathematics courses numbered 200 or more. One course in geometry numbered 200 or more is required. With approval of the Head of the Department of Mathematics, superior students may omit Mathematics 110 and 112.

## COURSES IN MATHEMATICS

## 101 Basic Concepts of Arithmetic 3 sem. hrs.

Introduction to the quantitative aspects of modern life. The course considers those concepts growing out of counting and numbers as well as those concepts growing out of measuring. Development of appreciative understanding and ability in the solution of problems.

## 107 Algebra 3 sem. hrs.

Includes topics of high school advanced algebra (third semester of high school algebra). For students who have had only one year of high school algebra.

108 Trigonometry 2 sem. hrs.
A standard course in plane trigonometry. Prerequisite: One and one-half units of high school algebra, or Mathematics 107, or concurrent enrollment in Mathematics 107; one year of high school geometry.

## 110 Introduction to Modern Mathematics 4 sem. hrs.

Sets, the development of number systems, matrices, and selected topics from college algebra and trigonometry. Prerequisite: One and one-half years of high school algebra or Mathematics 107; high school trigonometry or Mathematics 108.

## 112 Analytic Geometry 4 sem. hrs.

Plane analytic geometry with an introduction to solid analytic geometry. Prerequisite: Mathematics 110 .

## 115 Calculus I 4 sem. hrs.

Differentiation as usually given in the first semester of calculus and also an introduction to integration. Prerequisite: Mathematics 112.

## 116 Calculus II 4 sem. hrs.

A continuation of Calculus $I$ and completing the topics in integration as regularly taught in the first year of calculus. Prerequisite: Mathematics 115.

## 201 Arithmetic for the Elementary Grades 2 sem. hrs.

Background for the meaningful teaching of the beginning number concepts and counting, and the fundamental processes and their applications in problem solving. May not be used for a first or second field in mathematics. Prerequisite: Mathematics 101.

## 202 Mathematics for Junior High School Grades 2 sem. hrs.

Content, techniques, and trends in the teaching of mathematics in the junior high school grades. Only one course of Mathematics 202 or 302 may be used for a first or second field in mathematics. Prerequisite: Mathematics 201 or experience in teaching arithmetic, or Mathematics 116.

## 211 College Geometry 3 sem. hrs.

Concepts and theorems of the modern geometry of the triangle, circle, quadrilateral and quadrangle, and other related topics. Emphasis on proving original exercises, construction work, generalizations, and the connections of the topics with the subject matter of high-school geometry. Prerequisite: Mathematics 116 or concurrent enrollment.

## 212 Advanced Analytic Geometry 2 sem. hrs.

Extension of some aspects of Mathematics 112. The various coordinate systems in space, quadric surfaces, transformations, invariance, applications of matrix theory to geometry of space, and other related topics. Prerequisite: Mathematics 112.

## 213 Non-Euclidean Geometry 2 sem. hrs.

Introduction to the geometries of Bolyai, Lobatchevsky, and Riemann. Prerequisite: Mathematics 116 or concurrent enrollment.

## 220 Introduction to the History of Mathematics 2 sem. hrs.

Chronological survey of the growth of mathematics dealing with persons who have made outstanding contributions to elementary mathematics; a detailed study of the development of the special subjects of mathematics through the first steps of the calculus. Throughout the course, attention is paid to the relation of the historical aspects of mathematics to the teaching of highschool mathematics. Prerequisite: Mathematics 116 or concurrent enrollment.

## 251 Introduction to the Theory of Equations 2 sem. hrs.

General properties of equations, Sturm's theorem, upper and lower limits of roots, and transformation of equations. Prerequisite: Mathematics 116 or concurrent enrollment.

## 270 Astronomy 2 sem. hrs.

An introduction to astronomy. The universe, the solar system, the celestial sphere, the galactic systems, measuring time, and an introduction to celestial navigation. Prerequisite: Mathematics 115 .

## 299 Independent Honor Study 1-6 sem. hrs.

Intensive work in a special area of the student's first or second field. Each individual project is to culminate in a comprehensive written report and/or examination. Open only to resident stadents who have achieved superior academic records and who have demonstrated ability to profit from independent study. A maximum of six hours of credit in independent study may be applied toward graduation. Prerequisite: Permission of the instructor, the Head of the Department and the Dean of the Faculty.

## 301 Teaching of Arithmetic 3 sem. hrs.

(Formerly 401)
Significant problems, points of view, and trends in the teaching of arithmetic. Investigation of research related to organization, content, and techniques in this field. May not be used for a first or second field in mathematics. Prerequisite: Mathematics 201 or teaching experience.

## 302 Teaching of Junior High School Mathematics 2 sem. hrs.

(Formerly 402)
Significant problems, points of view, and trends in teaching of junior high school mathematics. Investigation of research and reports related to organization, content, and techniques in this field. Opportunity for study of particular problems of individual interest. Only one course of Mathematics 202 or 302 may be used for a first or second field in mathematics. Prerequisite: Mathematics 201 or experience in teaching arithmetic or Mathematics 116.

## 306 Set Theory 3 sem. hrs.

(Formerly 406)
Equivalent sets and cardinal numbers. Transfinite cardinal numbers as applied to sets of integers, rationals, irrationals, reals, algebraic, complex, and transcendental numbers. Ordered and similar sets. Dense and continuous sets. Prerequisite: Mathematics 116.

## 310 Number Theory 2 sem. hrs.

(Formerly 410)
Development of the number system, repeating decimals and congruences, diophatine equations, continued fractions, nonlinear congruences, and quadratic residues. Prerequisite: Mathematics 116.

312 Fundamental Concepts of Geometry 3 sem. hrs. (Formerly 412)
Foundations of geometry. Synthetic projective geometry and properties of projective spaces. Coordinate systems and postulates of separation. Analytic projective geometry related to synthetic. Affine geometry. Prerequisite: Mathematics 116.

## 313 Fundamental Concepts of Geometry 3 sem. hrs.

Euclidean geometry, parallelism, similarity, congruency. Directed angles, perpendicularity. The evolution of geometry. Constructions. Hyperbolic and elliptic geometries. Introduction to topology. Prerequisite: Mathematics 312.

315 Fundamental Concepts of Algebra 3 sem. hrs. (Formerly 415)
Set notation and operations with sets. Algebraic structures, rings, fields, and groups. Construction of integers, rationals, and reals. Introduction to number theory. Prerequisite: Mathematics 116.

## 316 Fundamental Concepts of Algebra 3 sem. hrs.

Matrix algebra. Vector operations and vector spaces. Linear systems. Vector geometry. Linear transformations. Linear programming and game theory. Prerequisite: Mathematics 315.

## 320 History of Mathematics 2 sem. hrs.

(Formerly 420)
History of modern mathematics. Development of mathematics in the area of number, form, discreteness, continuity, and application. Some emphasis is given to recent developments in mathematics. Prerequisite: Mathematics 116.

## 323 Teaching and Supervision of Mathematics 3 sem. hrs.

(Formerly 423)
Principles of teaching and learning applied to specific problems of mathematics education. Understanding and use of language and symbolism, problem solving, individual differences, learning aids. Analysis of objectives, recent trends and practices in classroom. Problems of supervision of elementary and secondary school mathematics are studied. Prerequisite: Mathematics 116.

## 325 Introduction to Finite Mathematics 2 sem. hrs.

Methods of proof, finite algebra, partition and counting, stochastic processes, matrix algebra, theory of games and linear programming, application to behavorial science problems. Prerequisite: Mathematics 116.

## 330 Mathematics of Finance 2 sem. hrs.

(Formerly 430)
Application of Mathematics in various fields of finance, with emphasis on problems of investments and insurance. Prerequisite: Mathematics 116.
335 Advanced Calculus 3 sem. hrs.
(Formerly 435)
Limits and continuity, infinite series, partial differentation, multiple integrals, line integrals, and other related topics. The necessary review of first year Calculus will be given with each advanced topic. Of special interest to students with a first field in Physical Sciences as well as Mathematics. Prerequisite: Mathematics 116.

## 340 Differential Equations 3 sem. hrs.

First-order and simple higher-order ordinary differential equations and applications, linear differential equations with constant coefficients and applications, and simultaneous differential equations and applications. Of special interest to first field students in Physical Sciences as well as Mathematics. Prerequisite: Mathematics 116.

## 345 Vector Analysis 2 sem. hrs.

(Formerly 445)
Vectors and scalars, the dot and cross product, vector differentation, gradient, divergence, and curl. Vector integration. The divergence theorem, Stokes' theorem, and related integral theorem. Curvolinear coordinates. Of special interest to students with first field in Physical Sciences as well as Mathematics. Prerequisite: Mathematics 116.

## 350 Probability and Statistics 3 sem. hrs.

Sample spaces and random variables. Frequency functions. Linear functions of random variables. Nature of statistical methods. Moment generating function and application to standard frequency functions. Prerequisite: Mathematics 116.

## 351 Probability and Statistics 3 sem. hrs.

Correlation and regression equations. Development of Chi-Square, Student's $t$ and $F$ distributions. Likelihood ratio tests. Analysis of variance and non-parametric methods. Prerequisite: Mathematics 350.

## 360 Field Work in Mathematics 2 sem. hrs.

(Formerly 460)
Mathematical applications designed to acquaint the teacher of junior and senior high school geometry or trigonometry with practical operation of transit, level, plane table, sextant, angle mirror, and alidade. Applications are drawn from problems associated with surveying, leveling, map making, and various examples of indirect measurement. Prerequisite: Mathematics 116.

## 365 Mathematical Logic 3 sem. hrs.

Formal logic, the statement calculus, truth tables, and tautologies, proof and demonstration, consistency of premises and indirect proofs, abstract mathematical systems, the restricted predicate calculus, symbolizing everyday language and application of logic in mathematics. Prerequisite: Mathematics 116.

## MICROBIOLOGY

## (See Biological Sciences)

## MUSIC

## TEACHING STAFF

[^9]Professors: Leslie M. Isted, Harlan W. Peithman, Howard H. Rye, Irwin Spector.

Associate Professor: Lyle M. Young.
Assistant Professors: Gertrude Erbe, Robert A. Elson, John W. Ferrell, Bruce M. Govich, Perry Hackett, Doris Hardine, Lowell J. Kuntz, Lawrence G. Rickert, Herbert C. Sanders, John B. Terwilliger, Arden L. Vance.

Instructors: William H. Engelsman, George P. Foeller, Mary G. Gallagher, Carolyn J. Lambert, Jack Stahl, Robert R. Whited.

## GENERAL EDUCATION COURSES

To meet requirements for groups I and V, students may choose from the following courses in Music: 151, 152, 156, 252, 253, 254, 255.

## CORE REQUIREMENTS

Students completing a first field or comprehensive field in Music take the following courses, considered as basic courses, in addition to other specific courses listed below for the various areas: Ten semester hours of theory courses 101 through 104 and 201 through 204, including 203; 156; 254; 255.
first field requirements in elementary and/or high school vocal
Courses in Music must total 43 semester hours. The following specific courses are required in addition to the core requirements: 127; eight semester hours of Applied Music selected from the following: 135, 137, 235, 237, 162; 210; 262; 264; 268; 269.

## FIRST FIELD REQUIREMENTS IN ELEMENTARY AND/OR HIGH SCHOOL INSTRUMENTAL

Courses in Music must total 44 semester hours. The following specific courses are required in addition to the core requirements: $111 ; 113 ; 115 ; 117$; eight semester hours of Applied Music selected from the following: 131, 135, 136, 138, 231, 235, 236, 238; 161; 209; 261; 268; 269.

COMPREHENSIVE FIELD REQUIREMENTS IN INSTRUMENTAL-VOCAL
A second teaching field is not necessary with the comprehensive field.
Courses in Music must total 60 semester hours. The following specific courses are required in addition to the core requirements: $111 ; 113 ; 115 ; 117$; 126; 127; eight semester hours of Applied Music selected from the following: $131,133,135,136,137,138,231,233,235,236,237,238 ; 161 ; 162$; 209; 261; 262; 264; 268; 269.

## COMPREHENSIVE FIELD REQUIREMENTS IN VOCAL-INSTRUMENTAL

A second teaching field is not necessary with the comprehensive field.
Courses in Music must total 60 semester hours. The following specific courses are required in addition to the core requirements: $111 ; 113 ; 115 ; 117$; 127; eight semester hours of Applied Music selected from the following: 131,
$133,135,136,137,138,231,233,235,236,237,238 ; 162 ; 210 ; 261 ; 262$; 264; 268; 269.

## SECOND FIELD REQUIREMENTS IN HIGH SCHOOL VOCAL

Courses in Music must total 22 semester hours. The following specific courses are required: a minimum of 6 semester hours of 101, 102, 103, 104, 201, 202, 203, 204; 126; 127; four semester hours of Applied Music selected from the following: $135,137,235,237 ; 264 ; 268$; one course of 156,253 , 254, 255.

## SECOND FIELD REQUIREMENTS IN ELEMENTARY SCHOOL VOCAL

Courses in Music must total 24 semester hours. The following specific courses are required: A minimum of 4 semester hours of 101, 102, 103, 104, 171, 201, 202, 203, 204; 126; 127; four semester hours of Applied Music selected from the following: $135,137,235,237 ; 152 ; 262 ; 264 ; 268$.

## SECOND FIELD REQUIREMENTS IN ELEMENTARY AND/OR HIGH SCHOOL INSTRUMENTAL

Courses in Music must total 24 semester hours. The following specific courses are required: A minimum of 6 semester hours of 101, 102, 103, 104, $201,202,203,204 ; 111 ; 113 ; 115 ; 117 ; 161 ; 269$; one course of $156,254,255$.

## PARTICIPATION IN MUSIC ORGANIZATIONS

Students who choose music as a first or second teaching field are required to participate in various music organizations. Selection of and assignment to the various organizations is determined through consultation with the head of the music department. One-half semester hour each semester in each organization may be earned until a cumulative maximum of six semester hours has been reached. Not more than two semester hours may be earned in one semester. Registration for credit in participation is optional with the student. Students who, upon entering the University, cannot qualify for participation in concert organizations, may participate in laboratory groups. Students wishing to earn credit for participation must register for courses as selected at registration time. Participation courses are numbered 181-187.

## PIANO PROFICIENCY

Students with a first or comprehensive field in Music are required to attain sufficient skill in playing the piano to pass a proficiency test prior to student teaching. The study of piano may be done in group instruction courses or in applied music.

## COURSES IN MUSIC

## 101, 102, 103, and 104 Music Theory Each 2 sem. hrs.

Integrated courses in theory which will develop well-rounded musicianship through coordinated experiences in the five areas-sight singing, dictation, keyboard harmony, form, and creative writing. Music 101 will place emphasis upon sight singing, 102 upon dictation, 103 upon keyboard harmony, and 104 upon form and creative writing. Assignment to these courses will be based upon previous preparation and experience.

111 Group Instruction in Brass 2 sem. hrs.

## 112 Group Instruction in Brass 1 sem. hr.

(Formerly 145)
Continuation of 111 with concentration on one brass instrument. Not required of students whose principal instrument is a brass instrument.

## 113 Group Instruction in Strings 2 sem. hrs.

(Formerly 114)
Practical instruction in playing the violin, viola, cello and string bass.
114 Group Instruction in Strings 1 sem. hr.
(Formerly 121)
Continuation of 113 except that concentration is on one stringed instrument. Not required for students whose principal instrument is a stringed instrument.

115 Group Instruction in Woodwinds 2 sem. hrs. (Formerly 125)
Practical instruction in playing all woodwind instruments.
116 Group Instruction in Woodwinds 1 sem. hr. (Formerly 136)
Continuation of 115 with concentration on one woodwind instrument. Not required of students whose principal instrument is a woodwind instrument.

## 117 Group Instruction in Percussion 1 sem. hr.

(Formerly 134)
Practical instruction in playing and methods of teaching the percussion instruments of the band and orchestra. Students who have had Music 118 may not take this course for credit.

## 118 Group Instruction in Brass and Percussion 2 sem. hrs.

(Formerly 133)
Practical instruction in playing the brass and percussion instruments of the band and orchestra Students who have had Music 117 or 111 may not take this course for credit.

## 121 Group Instruction in Piano 2 sem. hrs.

(Formerly 122)
Practical instruction in playing piano for students who have had no playing experience on piano. Provision for the harmonic background which will enable the student to improvise interesting piano accompaniments to folk melodies and simple songs.

## 122 Group Instruction in Piano 2 sem. hrs.

(Formerly 123)
Practical instruction in playing piano for students who have had playing experience on piano.

## 126 Group Instruction in Voice 2 sem. hrs.

(Formerly 131)
Practical instruction in singing. Prerequisite: Ability to sing simple melodies and a knowledge of the rudiments of music.

127 Group Instruction in Voice 2 sem. hrs.
(Formerly 132)
Continuation of Music 126.

## 131-138 Applied Music Each 1-2 sem. hrs.

Brass, 131 ; organ, 133 ; piano, 135; strings, 136 ; voice, 137 ; woodwinds, 138.

## 151 Survey of Music Literature 2 sem. hrs.

(Formerly 106)
Music representative of the various periods and styles. Students who have had the former Music 107 may not take this course for credit.

## 152 Literature of Music 2 sem. hrs.

(Formerly 151)
Orchestral and choral music, symphony, concerto, suite, ballet, and oratorio.

## 162 Methods and Materials of the Public Performance 3 sem. hrs. <br> (Formerly 157)

Selection and staging of materials suitable for entertainments and programs of the school year.

## 170 Music Literature for Children 2 sem. hrs.

(Formerly 150)
Music interests of children in the various grades; music literature that will enable the teacher to develop these interests and promote growth; music suitable for use in the various units in an activities program. Designed especially for teachers, principals, and supervisors in elementary schools.

## 171 Music for Elementary Schools 2 sem. hrs.

(Formerly 111)
Practical course in basic skills, fundamentals, and music for students in the Elementary and Special Education Curricula who have had limited experience in music.

## 181-187 Participation Each $1 / 2-6$ sem. hrs.

Participation in the major organizations: Concert Band, 181; Concert Orchestra, 182; Women's Chorus, 183; Male Chorus, 184; Men's Glee Club, 185; Treble Choir, 186; Choir, 187.

201, 202, 203, and 204 Music Theory Each 2 sem. hrs.
Comparable to Music 101, 102, 103, and 104, except that emphasis will be placed upon analysis of both contrapuntal and written harmony dealing with modulation and various embellishments.

## 208 Harmony 3 sem. hrs.

Provision for the harmonic background which will enable the teacher to improvise interesting piano accompaniments to folk melodies and songs for children. Emphasis on the construction of two- and three-part arrangements of unison melodies. Students with a teaching field in music may not take this course except by special permission.

## 209 Orchestration 2 sem. hrs.

(Formerly 217)
Scoring for orchestras and bands, involving tonal balance, color, timbre, and technical problems. Scores completed in this class will be performed by campus organizations during the season under the direction of the persons scoring the works.

## 210 Choral Arranging 2 sem. hrs.

(Formerly 219)
Arranging Music for large and small vocal ensembles with emphasis on the needs of the public school vocal teacher.

## 231-238 Applied Music Each 1-2 sem. hrs.

Advanced brass, 231; organ, 233; piano, 235; strings, 236; voice, 237; woodwinds, 238.

## 252 Literature of Music 2 sem. hrs.

Chamber music-instrumental and vocal literature for solos and small ensembles.

## 253 Music History and Literature to 16th Century 3 sem. hrs.

(Formerly 215)
The development of Music from earliest times through the sixteenth century.

## 254 Music History and Literature, 19th Century 3 sem. hrs.

(Formerly 244)
Development of music during the nineteenth century including nationalities, school, biographies of composers, style, form.

## 255 <br> Music History and Literature, 20th Century 3 sem. hrs.

(Formerly 245)
Detailed study of twentieth-century music-how it has developed and what its trends are. Opportunity will be given to listen to many illustrations of conspicuous styles-rationalism, realism, impressionism, atonality, polytonality, neoclassicism, and jazz. Notice will be taken of the effect of the machine, radio, television, and war upon music. Emphasis upon American contributions.

## 261 Current Trends in Instrumental Music 3 sem. hrs.

(Formerly 256)
Administration and supervision of instrumental music in the elementary and secondary schools, methods and materials in current use, and current research that may affect instrumental music teaching.

## 262 Music Education 3 sem. hrs.

(Formerly 234)
Survey of music in the kindergarten and grades one through six; current practices in teaching music in these grades; materials used for singing, listening, rhythmic activities, creating, and playing; planning of music suitable for the activities program. Students who do not have a teaching field in music may not take this course except by special permission.

## 264 Music Education 3 sem. hrs.

(Formerly 235)
Survey of music in grades seven through twelve; current practices in teaching music in these grades; materials used for singing, listening, and creative activities; planning of music suitable for the activities prograna in junior and senior high school. Students who do not have a teaching field in Music may not take this course except by special permission.

## 268 Conducting (Choral) 2 sem. hrs.

(Formerly 213)
Fundamental principles of baton technique, voice testing and blending, routine of organization and rehearsal of choral groups, and practical experience in conducting. Prerequisite: Choral experience and a knowledge of the rudiments of music.

## 269 Advanced Conducting (Instrumental) 2 sem. hrs. (Formerly 236)

Continuation of the study of baton technique, score reading, and interpretation. Practical experience in conducting instrumental groups. Observation and discussion of the activities of performing groups on and off campus; practical work in conducting instrumental groups.

## 275 Music Education for the Lower Grades 3 sem. hrs.

(Formerly 239)
Basic skills, techniques, and materials for music activities in kindergarten, grades one, two, and three. Designed to meet the needs of the classroom teacher. Students with a teaching field in music may not take this course except by special permission.

## 276 Music Education for the Upper Grades 3 sem. hrs.

(Formerly 240)
Basic skills, techniques, and materials for music activities in grades four, five, six, seven, and eight. Designed to meet the needs of the classroom teacher. Students with a teaching field in music may not take this course except by special permission.

## 301 Form and Analysis in Music 2 sem. hrs.

(Formerly 401)
Structure of classical music ranging from simpler compositions as found in piano works to more elaborate material as found in major sonatas and symphonies.
305 Composition 3 sem. hrs.
(Formerly 405)
Free composition in larger forms with opportunities for performance of original works for voices, instrumental combinations, or full orchestra.
309 Orchestration 3 sem. hrs.
(Formerly 417)
Review of instruments: ranges, timbres, technical difficulties, and limitations. Arranging for combinations of instruments, full band and orchestra. Study of problems contained in standard repertory. Special attention to problems of school band and orchestra scoring.

351 The Opera 2 sem. hrs.
(Formerly 451)
Historical development of the opera with emphasis on stylistic elements and trends of the various periods. Study of the plots and music through recordings, piano scores, full scores, as well as live performances.

## 361 Instrumental Techniques 3 sem. hrs.

(Formerly 456)
Problems and procedures in developing instrumental classes and organizations.
363 Choral Techniques 2 sem. hrs.
(Formerly 413)
Clinical aspects of the chorus rehearsal, contemporary choral practices, repertoire and source material, interpretation and program building. Prerequisite: course in conducting or practical experience.

366 Tonal Measurement 3 sem. hrs.
Physical measurement of musical tone in relation to the problems in the classroom, the rehearsal, and the performance.

## 371 Music for the Exceptional Child 3 sem. hrs.

(Formerly 238)
Trends in music education for exceptional children. Techniques and materials for a functional program of singing, playing, listening, and creative activities based upon the needs of the exceptional child.

## 377 Music Education in the Elementary Grades 3 sem. hrs.

(Formerly 241)
Basic skills, techniques, and materials for music activities in kindergarten and grades one through eight. Designed to meet the needs of the classroom teacher and elementary principals. Students with a teaching field in music may not take this course except with special permission. Students who have had Music 275 or 276 may not take this course for credit.

## 384 Opera Production 3 sem. hrs.

Operas and operettas including the problems of presenting high school and college productions. Members of the class participate in the production of an opera or operetta. Prerequisite: approval of the Head of the Department of Music.

## PHYSICAL EDUCATION

## (See Health and Physical Education)

## PHYSICAL SCIENCES

teaching staff $\quad 453-2526 \quad 426$
Head of the Department: Bernard L. Ryder. Office: Science Building 310.

Professors: DeVerne H. Dalluge, G. Harlowe Evans, R. U. Gooding, Esther M. Griffith, Bernard L. Ryder.

Associate Professor: Harold J. Born.
Assistant Professors: Robert L. Cramer, Thomas F. Edwards, Thaddeus C. Ichniowski.

Instructors: Robert J. Brush, Glen E. Greenseth, Lewis L. Legg, George P. Warren, Jr.

## GENERAL EDUCATION COURSES

To meet requirements for groups III and V, students may choose from the following courses in Physical Sciences: 100, 110, 111, 112, 140, 141, 146, $147,156,157,170,171,180,181$.

## FIRST FIELD REQUIREMENTS WITH A SPECIALIZATION IN CHEMISTRY

Courses in Physical Sciences must total 37 semester hours. The following specific courses are required:

Chemistry: 140; Either 141 and 148 or 146 and 147; 231; 240; 241. Additional courses in chemistry to make a total of 15 semester hours in courses numbered 200 or more.

Physics: Either 170 and 171 or 180 and 181; one course numbered 200 or more.

FIRST FIELD REQUIREMENTS WITH A SPECIALIZATION IN PHYSICS
Courses in Physical Sciences must total 37 semester hours. The following specific courses are required:

Physics: Either 170 and 171 or 180 and 181; 280, 281, or 285; 282; 283 (at least 2 semester hours); 284. Additional courses in physics to make a total of 15 semester hours in courses numbered 200 or more.

Chemistry: Either 140 and 141 or 146 and 147; 240.

## COMPREHENSIVE FIELD REQUIREMENTS IN PHYSICAL SCIENCES

A second teaching field is not necessary with the comprehensive field.
Courses in Physical Sciences must total 53 semester hours. The following specific courses are required:

Chemistry: 140; Either 141 and 148 or 146 and 147; 231; 240; 241.
Physics: Either 170 and 171 or 180 and 181; 280; 281 or 285; 282; 283 (at least 2 semester hours); 284.

Electives: Additional 8 semester hours of courses in chemistry and physics numbered 200 or more.

## SECOND FIELD REQUIREMENTS IN PHYSICAL SCIENCES

Courses in Physical Sciences must total 25 semester hours. The following specific courses are required: Either 140 and 141 or 146 and 147; Either 170 and 171 or 180 and 181; 240 or 241 ; a course in physics numbered 200 or more.

## SECOND FIELD REQUIREMENTS IN GENERAL SCIENCE

A student who has a first field in Physical Sciences may elect this second field by taking the following 23 semester hours: Biological Sciences 121; 190; two courses of 122, 123, 191, 192; Geography 105; 110; 175; Physical Sciences 325.

SECOND FIELD REQUIREMENTS IN CHEMISTRY
Courses in Chemistry must total 23 semester hours. The following specific courses are required: Either 140 and 141 or 146 and 147; 240 or 241.

## SECOND FIELD REQUIREMENTS IN PHYSICS

Courses in Physics must total 23 semester hours. The following specific courses are required: Either 170 and 171 or 180 and 181; 284.

## COURSES IN PHYSICAL SCIENCES

Courses are listed under three topics: General Courses, Chemistry, Physics.

## GENERAL COURSES

## 100 Introduction to Physical Science 3 sem. hrs. (Formerly 101)

A survey of the physical sciences designed to contribute to the general education of the beginning student. Selected topics from both physics and chemistry are used to help the student interpret his physical environment. Not designed for students who take a first or second field in Physical Sciences. Students who have had a laboratory course in Physical Sciences may not take this course for credit.

## 104 Chemistry for Nurses 3 sem. hrs.

Basic chemical principles and representative inorganic and organic compounds. Cannot be used as a prerequisite for any other chemistry course. Three class meetings per week including one two-hour laboratory period.

## 225 Physical Sciences for Elementary Teachers 3 sem. hrs.

(Formerly 230)
Fundamentals of the Physical Sciences. Includes laboratory experiences designed to acquaint student with techniques appropriate for the teaching of elementary school science. Three class meetings per week including one two-hour laboratory period.
325 General Science 3 sem. hrs.
(Formerly 374)
Objectives of general science. Selection of subject matter, tests, texts, workbooks, equipment, and supplies will be considered. For teachers qualified to teach general science in the elementary, junior high, and senior high schools.

## CHEMISTRY

## 110 Inorganic Chemistry 3 sem. hrs.

(Formerly 120)
Fundamental principles of chemical science. Three class meetings per week, including one twohour laboratory period. Students who have had Physical Sciences 140 or 112 may not take this course for credit.
111 Fundamentals of Organic Chemistry 3 sem. hrs. (Formerly 132) Elementary organic chemistry of the hydrocarbons and their simple derivatives, fats, carbohydrates, proteins, dyes, textiles, and plastics. Three class meetings per week, including one two-hour laboratory period. Students who have had Physical Sciences 113 or 240 may not take this course for credit. Prerequisite: Physical Sciences 110, 112, or 140.

## 112 Elementary Inorganic Chemistry 5 sem. hrs. (Formerly 142)

Principles of chemical science including chemistry of metals and nonmetals. Five class meetings per week, including two two-hour laboratory periods. Students who have had Physical Sciences 110 or 140 may not take this course for credit.
113 Elementary Organic Chemistry 5 sem. hrs. (Formerly 143) Introduction to organic chemistry with emphasis on points of fundamental importance in the application of organic chemistry in agriculture. Five class meetings per week, including two two-hour laboratory periods. Students who have had Physical Sciences 111 or 240 may not take this course for credit. May not be used for a first or second field in Physical Sciences unless followed by Physical Sciences 341. Prerequisite: Physical Sciences 112 or 140.

## 140 General Chemistry 5 sem. hrs.

First half of a two-semester sequence, including fundamental principles. Five class meetings per week, including one three-hour laboratory period. Students who have had Physical Sciences 110 or 112 may not take this course for credit.

## 141 General Chemistry 4 sem. hrs.

Continuation of Physical Sciences 140 including the metals. Four class meetings per week, including one three-hour laboratory period. Prerequisite: Physical Sciences 140.

## 146 General Chemistry 5 sem. hrs.

First half of a two-semester sequence including the fundamental principles of chemistry and atomic structure. Designed for the student who demonstrates high achievement and ability at the pre-college level. Five class meetings per week including one three-hour laboratory period. Prerequisite: high school chemistry; approval of Head of Department; and one of Mathematics $107,108,110,112$, or concurrent registration.

## 147 General Chemistry 5 sem. hrs.

Continuation of Physical Sciences 146. Study of metals and nonmetals, including qualitative analysis. Five class meetings per week including two three-hour laboratory periods. Prerequisite: Physical Sciences 146.

## 148 Qualitative Analysis 4 sem. hrs.

(Formerly 201)
Chemical equilibrium as applied to the separation and identification of the anions and cations. Four class meetings per week, including two two-hour laboratory periods. Prerequisite: Physical Sciences 141.

## 231 Quantitative Analysis 4 sem. hrs.

(Formerly 204)
Fundamental principles of the quantitative estimation of metal and nonmetal components of mixtures, compounds, and alloys. Four class meetings per week, including two two-hour laboratory periods. Prerequisite: Physical Sciences 147 or 148.

## 240 Organic Chemistry 4 sem. hrs.

(Formerly 207)
Introduction to organic chemistry in which a general study is made of the aliphatic and aromatic compounds together with laboratory practice on preparations and reactions. Four class meetings per week, including one three-hour laboratory period. Students who have had Physical Sciences 111 or 113 may not take this course for credit. Prerequisite: Physical Sciences 141 or 147.

## 241 Organic Chemistry 4 sem. hrs.

(Formerly 212)
Continuation of Physical Sciences 240 in which a more detailed study is made of the aliphatic, carbocyclic and heterocyclic compounds together with laboratory practice on preparations and reactions. Four class meetings per week, including one three-hour laboratory period. Prerequisite: Physical Sciences 240.

## 249 Senior Research in Chemistry 3 sem. hrs.

(Formerly 299)
Development of a better understanding of the significance of research in chemistry through the study of a research problem. Prerequisite: 20 semester hours of chemistry; senior standing; consent of Head of Department.
331 Topics in Contemporary Chemistry 3 sem. hrs. (Formerly 301)
New concepts and recent developments in the fields of organic, inorganic, and analytical chemistry. Prerequisite: Physical Sciences 231 and 241.

## 332 Municipal and Industrial Science 3 sem. hrs. (Formerly 319)

Scientific aspects of community and industrial problems. Includes excursions to industries and research laboratories within a seventy-five mile radius at no transportation cost to the student. Gives a background in applied science as an enrichment for classroom teaching. Prerequisite: Physical Sciences 231 and 241.

333 History of Chemistry 2 sem. hrs.

## 334 Chemical Literature 2 sem. hrs.

(Formerly 502)
Introduction to chemical literature in journals, handbooks, abstracts, monographs, and patents. Problems requiring literature searches in all fields of chemistry. Prerequisite: 20 semester hours of chemistry.

## 340 Physical Chemistry 5 sem. hrs.

(Formerly 421)
First of a series in theoretical chemistry dealing with gases, liquids, solutions, thermochemistry, thermodynamics, chemical and phase equilibrium, kinetic theory, and chemical kinetics. Four class meetings per week including two three-hour laboratory periods. Prerequisite: Physical Sciences 171 or 181, 231, 241, and Mathematics 116.

## 341 Physical Chemistry 5 sem. hrs.

(Formerly 424)
Continuation of Physical Sciences 340, including ionic equilibrium, electrical conductance, electromotive force, photo chemistry, spectroscopy, crystals, molecular structure, statistical mechanics, quantum theory, colloids, radioactivity, and nuclear theory. Four class meetings per week including two three-hour laboratory periods. Prerequisite: Physical Sciences 340.

## 342 Introduction to Biochemistry 4 sem. hrs.

Chemistry of the proteins, carbohydrates, nucleic acids, vitamins, and enzymes; their degradation, formation, and associated energy changes in biological processes. Four class meetings per week including one three-hour laboratory period. Prerequisite: Physical Sciences 231 and 113 or 240.

## 344 Qualitative Organic Analysis 3 sem. hrs.

(Formerly 412)
Identification of organic compounds. Three class meetings per week including two three-hour laboratory periods. Prerequisite: Physical Sciences 241.

## PHYSICS

## 156 Fundamentals of Physics 3 sem. hrs.

(Formerly 154)
Basic principles of physics and their applications in everyday living. Mechanics, heat, electricity and light. Three class meetings per week, including one two-hour laboratory period.

## 157 Elementary Physics 5 sem. hrs.

(Formerly 152)
Brief course for those who need a one-semester course covering selected topics from the various divisions of physics. Five class meetings per week including one three-hour laboratory period. Students who have had Physical Sciences 156,170 , or 171 may not take this course for credit. May not be used for a first or second field in Physical Sciences.

## 170 General Physics 5 sem. hrs.

(Formerly 150)
First half of a two-semester sequence, including elementary mechanics, wave motion, sound, and heat. Five class meetings per week, including one three-hour laboratory period. Students who have had Physical Sciences 157 may not take this course for credit. Prerequisite or concurrent registration: Mathematics 107 or 108.

## 171 General Physics 4 sem. hrs.

(Formerly 151)
Continuation of Physical Sciences 170 including elementary magnetism, electricity, electronics, optics, and radiation. Four class meetings per week, including one three-hour laboratory period. Students who have had Physical Sciences 157 may not take this course for credit. Prerequisite: Physical Sciences 170.

## 180 General Physics 5 sem. hrs.

Includes the topics covered in General Physics 170 utilizing the concepts of calculus. Students who either plan to specialize in physics with a first field in Physical Sciences or take a second field in physics will be expected to take the 180-181 course sequence. Five class meetings per week including one three-hour laboratory period. Prerequisite: Mathematics 115 or concurrent registration.

## 181 General Physics 5 sem. hrs.

A continuation of Physical Sciences 180. Five class meetings per week including one three-hour laboratory period. Prerequisite: Physical Sciences 180 and Mathematics 116 or concurrent registration.

273 Intermediate Physics 3 sem. hrs.
(Formerly 252)
A more advanced course in physics for those who are not familiar with calculus. Emphasis is placed on modern physics. Not open to Physical Sciences majors specializing in physics or students with a second field in physics. Prerequisite: Physical Sciences 171.
280 Mechanics 3 sem. hrs.
(Formerly 265)
Kinematics and dynamics of particles: Introductory treatment of rigid bodies; harmonic oscillation. Prerequisite: Physical Sciences 171 or 181 and Mathematics 116 or concurrent registration.

## 281 Thermodynamics 3 sem. hrs.

The laws of thermodynamics and their application to pure and mixed systems with a brief introduction to statistical mechanics. Prerequisite: Physical Sciences 171 or 181 and Mathematics 116 or concurrent registration.

## 282 Electricity and Magnetism 3 sem. hrs.

(Formerly 261)
Electrostatic field; electric flelds in simple geometrics; electric current; magnetostatic fields, magnetic fields of simple geometrics; introduction to electromagnetic theory and Maxwell's equations. Four class meetings per week, including one three-hour laboratory period. Prerequisite: Physical Seiences 171 or 181 and Mathematics 116.

## 283 Advanced Laboratory in Physics 1-2 sem. hrs.

Instruction in the use of precision laboratory equipment and performance of fundamental experiments in physics. May be taken twice for credit. One three-hour laboratory period for each semester hour of credit. Prerequisite or concurrent registration: one 200-level physics course.

## 284 Modern Physics 3 sem. hrs.

(Formerly 264)
Foundations of atomic and nuclear physics; short introduction to relativity, quantum mechanics, and solid state physics. Prerequisite: Physical Sciences 171 or 181 and Mathematics 116.
285 Optics 3 sem. hrs.
(Formerly 272)
Wave motion as applied to sound and light, including the following: Doppler's and Huygen's principles, lens study, dispersion, interference, wave lengths, and electromagnetic theory. Four class meetings per week, including one three-hour laboratory period. Prerequisite: Physical Sciences 171 or 181 and Mathematics 116.
286 Topics in Contemporary Physics 3 sem. hrs. (Formerly 302)
Atomic and nuclear physics; cosmic radiation; elementary particles; nuclear energy; new theoretical concepts. Prerequisite: 200-level course in physics.
289 Senior Research in Physics 3 sem. hrs.
(Formerly 299)
Development of a better understanding of the significance of research in physics through the study of a research problem. Prerequisite : 20 sem . hrs. of physics; senior standing and consent of Head of Department.
380 Fundamentals of Nuclear Physics 3 sem. hrs. (Formerly 460) Properties of the atomic nucleus, disintegration processes, detection techniques for nuclear radiation, energy levels, and selection rules. Detailed consideration of topics involved in experimental nuclear research. Prerequisite: Physical Sciences 284.

## 382 Theoretical Physics 3 sem. hrs.

(Formerly 463)
Selected topics in the mathematical techniques needed for graduate physics and applications of these techniques to mechanics, electricity and magnetism, and relativity. Prerequisite: Differential Equations and two 200-level courses in physics.

## 383 Electron Physics 3 sem. hrs.

(Formerly 462)
Free electron gas theory of metals including thermionic emission, photoelectric emission, contact potentials, electrothermal and magneto-electrical effects, discharge of electricity in gases. Prerequisite: one 200 or 300 -level course in physics.
384 Introduction to Quantum Mechanics 3 sem. hrs. (Formerly 561) Mathematical formulation of quantum theory and applications to simple systems. Prerequisite: Physical Sciences 284 and Mathematics 340.

## PHYSICS

(See Physical Sciences)

# POLITICAL SCIENCE 

(See Social Sciences)

## PSYCHOLOGY

## (See Education and Psychology)

## RUSSIAN

(See Foreign Languages)

## SOCIAL SCIENCES

teaching staff
Head of the Department: Benjamin J. Keeley. Office: Schroeder Hall 323.

Professors: Helen M. Cavanagh, Alice M. Eikenberry, Arlan C. Helgeson, Benjamin J. Keeley, John A. Kinneman, Helen E. Marshall, Vernon C. Pohlmann, Theodore Sands, Lucy L. Tasher.

Associate Professors: Alice L. Ebel, Walter S. G. Kohn, Henri R. Pearcy, Robert S. Ravicz, Earl A. Reitan.

Assistant Professors: Frances M. Alexander, John H. Behling, Roger J. Champagne, Thomas P. Dilkes, Charles E. Gray, Stanley E. Grupp, Albert S. Hanser, Warren R. Harden, Kenneth E. Kerle, Mark A. Plummer, Douglas Poe, Hans-Dieter Renning, Thalia J. Tarrant, Ronald D. Ware.

Instructors: Olgert Pocs, David E. Sweet, Duff Tucker, Thomas D. Wilson.

GENERAL EDUCATION COURSES
To meet requirements for group II, students may choose from the following courses in the Social Sciences: Economics 107, 171; History 123, 124, 128, 135, 136; Political Science 105, 150; Sociology and Anthropology 106, 166, 181.

For group V, all undergraduate courses in the Social Sciences except the following may be used: General 291; Economics 273, 370; History 139, 292, 295; Political Science 151, 252, 256, 257; Sociology and Anthropology 265, 267.

## First field requirements in the social sciences

Students electing Social Sciences as a first teaching field must complete a minimum of 16 semester hours in history (8 in United States history and 8 in
world history), 8 semester hours in economics, 8 semester hours in political science, and 8 semester hours in sociology-for a minimum of 40 semester hours. In addition, the completion of 291 is highly desirable. The following courses are required: Economics 107 and 171; History 123, 124, 135, 136; Political Science 150; Sociology 166.

## COMPREHENSIVE FIELD REQUIREMENTS IN SOCIAL SCIENCES

A limited number of students, with the consent of the Head of the Department of Social Sciences, may pursue a comprehensive field of 55 semester hours. A second field is not necessary with the comprehensive field. Students must complete a minimum of 16 semester hours in history ( 8 in United States history and 8 in world history), 8 semester hours in economics, 8 semester hours in political science, and 8 semester hours in sociology. The following courses are required: History 123, 124, 135, 136; Economics 107 and 171; Political Science 150; Sociology 166. The completion of 291 is highly desirable.

SECOND FIELD REQUIREMENTS IN SOCIAL SCIENCES
Courses in Social Sciences must total 27 semester hours. If students are preparing to teach history, they must take 123,124 or $128,135,136$, and electives to complete a total of at least 16 semester hours in history ( 8 in United States history and 8 in world history). The completion of 291 is desirable. In selecting electives students should consult the Head of the Department of Social Sciences before the conclusion of the sophomore year.

## SECOND FIELD REQUIREMENTS IN ECONOMICS

Courses in Economics must total 18 semester hours. The following specific courses are required: 107, 171.

## SECOND FIELD REQUIREMENTS IN HISTORY

Courses in History must total 24 semester hours. The following specific courses are required: 123,124 or $128,135,136$.

## SECOND FIELD REQUIREMENTS IN POLITICAL SCIENCE

Courses in Political Science must total 18 semester hours. The following course is specifically required: 150 .

SECOND FIELD REQUIREMENTS IN SOCIOLOGY-ANTHROPOLOGY
Courses in Sociology-Anthropology must total 18 semester hours. The following course is specifically required: 166.

## COURSES IN SOCIAL SCIENCES

Courses are listed under five topics: General Courses, Economics, History, Political Science, Sociology-Anthropology.

Undergraduate courses have the following plan for numbers: Number 105 is Political Science, 106 is Sociology and 107 is Economics. The 120's, 220's
and 320 's-European history; the 130 's, 230 's, and 330 's-United States history; the 140 's, 240 's, and 340 's-World history; the 150 's, 250 's, and 350 's-political science; the 160 's, 260 's, and 360 's-sociology; the 170's, 270's, and 370'seconomics; the 180's, 280's, and 380's-Anthropology.

Political Science 105 and Sociology 106 may not be used toward a first, second, or comprehensive field in the Social Sciences.

## GENERAL COURSES

## 291 Materials in Social Sciences 2 sem. hrs.

Historical approach to the development of the social sciences with emphasis on the changing content of each field and its significance for the high school curriculum. Emphasis on historiography, leaders in each field, professional and scholarly organizations, and current literature and materials for the informed teacher. For students who have a first or second field in the social sciences.

## 306 Regional and Areal Studies 1-9 sem. hrs.

An intensive study of particular lands, environments, cultures, and peoples. May be given in cooperation with other departments, on or off campus. The areas to be studied, participating departments, and credit hours available in the several departments, will be announced each time the course is offered.

## ECONOMICS

## 107 Principles of Economics I 3 sem. hrs.

Provides material essential to intelligent citizenship and an understanding of some basic forces underlying the economy. Assures a workable balance between the descriptive, analytical, and the problem approach to economic education.

## 171 Principles of Economics II 3 sem. hrs.

Designed to give the student an acquaintance with our economic system and the theory explaining its operation. The course seeks to clarify numerous economic terms in common use as well as describe some of the basic economic institutions and practices. Prerequisite: Social Sciences 107.

## 272 Comparative Economic Systems 2 sem. hrs.

Analysis of the theoretical and descriptive aspects of Capitalism, Communism, Fascism, and Socialism. Special emphasis given the process of economic decision-making, particularly with respect to the allocation of resources and economic growth. Prerequisite: Social Sciences 171.

## 273 Money and Banking 3 sem. hrs.

Development of the monetary system of the United States. The growth of banks and the banking system as a managing agency of American financial activities. Prerequisite: Social Sciences 171.

## 274 Labor Economics and Labor Problems 3 sem. hrs.

The worker and his problems with emphasis on such economic problems and issues as unemployment, hours, wages, collective bargaining, and strikes. Prerequisite: Social Sciences 171.

370 Transportation 3 sem. hrs.
(Formerly 270)
Development of railway, waterway, air, and highway transportation. Considerable attention is given to the major problems growing out of increased traffic and its regulation. Major emphasis on contemporary conditions and problems. Prerequisite: Social Sciences 171.

371 Intermediate Economic Theory $3 \mathrm{sem} . \mathrm{hrs}$.
(Formerly 571)
Intense and critical examination of the economic theory underlying the operation of a system of free enterprise. Prerequisite: Social Sciences 171.

## 375 Public Finance 3 sem. hrs.

(Formerly 475)
Governmental expenditures and income with emphasis upon the continuous expansion of federal expenditures and problems growing out of that situation. Prerequisite: Social Sciences 171.

## 377 Selected Studies in Economics 3 sem. hrs.

The field of study covered will vary each semester according to the interests and needs of the students and the availability of instructors. Provided different material is covered, the course may be taken more than once. Prerequisite: Social Sciences 171.

## 378 History of Economic Thought 3 sem. hrs.

(Formerly 275)
Economic thought and theory from ancient to modern times. Emphasis on those ideas which influenced the economic development of western civilization. Prerequisite: Social Sciences 171.

## 379 International Economics 3 sem. hrs.

(Formerly 271)
Designed to examine such basic aspects of the international economy as the reasons for trade, the terms of trade, and the adjustments necessary to achieve the highest possible plane of living. Particular emphasis on the tariff issue and the purposes and functions of the international financial institutions now extant. Prerequisite: Social Sciences 171.

## HSTORY

## 123 History of Civilization and Culture 3 sem. hrs.

Primitive man; the ancient cultures; the civilizations of Greece and Rome; the Middle Ages. Constant attention to the evolution of institutions, arts, and processes.

## 124 History of Civilization and Culture 3 sem. hrs.

Continuation of History 123. Emphasizes the transition to the modern world, and attempts to estimate the nature and development of modern civilization. Students who have had Social Sciences 128 may not take this course for credit.

## 128 Modern World Civilizations, 1200 to Present 4 sem. hrs.

To give an understanding of the forces and events of the leading historical movements from medieval times to the present. Designed for students who do not have a first or comprehensive field in Social Sciences. Students who have had Social Sciences 124 may not take this course for credit.

## 135 History of the United States 3 sem. hrs.

Colonial and national periods to 1865. Emphasis upon the economic development of the colonies, the struggle for independence, the social and cultural development of European stock in this country, the formation of a national government, territorial expansion, sectionalism, and the issues resulting in the Civil War.

## 136 History of the United States 3 sem. hrs.

Continuation of Social Sciences 135 to the present time. Agrarian and industrial revolutions, development of American institutions, and America as a world power.

## 139 History of Illinois 2 sem. hrs.

A survey of the history of Illinois with emphasis upon the changes that have come with the growth of industrialization and urbanization.

## 220 Ancient History 3 sem. hrs.

Greek and Roman history with emphasis on the Athenian democracy and the constitutional history of the Roman Republic. Contributions of the Greeks and Romans to literature, art, religion, and science presented against a political, economic, and social background. Prerequisite: Social Sciences 123.

## 222 History of Russia 2 sem. hrs.

(Formerly 127)
Rise of the Russian nation, its expansion, the Czarist regime, the Revolution of 1917, Communism, Lenin and Stalin, Russia's foreign relations, Russia in World War II and after.

## 223 Medieval History 3 sem. hrs.

Chronologically, Roman History to 1500. The Church, feudalism, the towns, and the medieval background of modern nationalities considered. Prerequisite: Social Sciences 123.

## 224 English History 3 sem. hrs.

Development of the British Constitution, the church, the rise of machine civilization, economic imperialism, party government, extension of the franchise, problems of Empire, remedial legislation, and problems of World Wars I and II. Prerequisite: Social Sciences 123 or 124 or 128.

## 225 Renaissance and Reformation, Europe 1300-1600 2 sem. hrs.

The transition from the medieval to the modern world; consolidation of national monarchies, problems of the Church, Renaissance in Italy, Christian humanism, Reformation and the Religious Wars, explorations and the colonial empires, thought and literature of the sixteenth century. Prerequisite: Social Sciences 123 or 124 or 128.

## 226 Absolutism and Enlightenment, Europe 1600-1789 2 sem. hrs.

Political and intellectual history of Europe in the seventeenth and eighteenth centuries; emphasis upon absolutism in France, constitutional conflict in England, colonial expansion, philosophy, science, and religion. Prerequisite: Social Sciences 123 or 124 or 128.

## 227 French Revolution, 1789-1815 2 sem. hrs.

Society, culture, and government under the monarchy; destruction of the old order-hierarchial, hereditary, monarchial, and absolutist; rise and fall of Napoleonic France; struggle for world power between France and Great Britain. Prerequisite: Social Sciences 124 or 128.

## 228 Europe in the 19th Century, 1815-1914 2 sem. hrs.

Forces that led to World War I. Major topics: nationalism, militarism, economic imperialism, systems of alliances, the Balkan problem, and the great international crises. Prerequisite: Social Sciences 124 or 128.

## 229 Contemporary World History 3 sem. hrs.

Treaties which closed World War I as background material. Units considered: Soviet Russia, Fascist Italy, and Germany, unrest in Africa and Asia, World War II and its aftermath. Prerequisite: Social Sciences 124 or 128.

## 231 Colonial Life and Institutions 3 sem. hrs.

Transfer of European ideas, institutions, and customs to America, and their subsequent development on American soil. Prerequisite: Social Sciences 135.

## 232 History of the American Frontier 3 sem. hrs.

Westward movement and the influence of the frontier on American life and institutions. Prerequisite: Social Sciences 135.

## 233 Expansion and Union 2 sem. hrs.

Life, leaders, and institutions in the middle period of American history. Emphasis upon sectionalism, nationalism, compromise and reaction, party evolution, economic development, and social antagonisms which culminated in the settlements arising out of the Civil War. Prerequisite: Social Sciences 135.

## 234 Building the Nation 2 sem. hrs.

Emergence of the independent United States. Emphasis upon the work of the Constitutional Convention and the establishment of a national government, shaped politically, economically, and socially by the principles and influence of early federalism and of Jeffersonian democracy. Prerequisite: Social Sciences 135.

## 235 History of the South 3 sem. hrs.

Characteristics and institutions which identify the South as a section, the collapse of the Confederacy and the building of the new South. Prerequisite: Social Sciences 135.

## 236 American Industrial History 3 sem. hrs.

Industrialization of America; the problems of agriculture, monopoly, and labor; the role of government in regulating and guiding economic activity. Prerequisite: Social Sciences 135 or 136.

## 237 History of American Diplomacy 2 sem. hrs.

Reviews the history of the diplomatic activities of American government. A presentation and interpretation of official papers and documents as well as the personalities in American diplomacy. Prerequisite: Social Sciences 135 or 136.

## 238 Old Northwest, 1840-1880 2 sem. hrs.

States of the Northwest Territory and their neighbors from the Jacksonian Period to the Gilded Age. The people of the region, their attitudes toward national affairs, and their significant contributions to the building of the nation. Attention directed toward problems of modern America. Prerequisite: Social Sciences 135.

## 239 United States as a World Power 2 sem. hrs.

Emergence of the United States as a great power in world affairs. Problems of isolation, neutrality, relations with the League of Nations, and the peace treaties following World Wars I and II. Emphasis upon world affairs with attention directed toward the participation and leadership of the United States after World War II. Prerequisite: Social Sciences 136.

## 243 History of the Far East 3 sem. hrs.

Peoples and problems of the Orient with reference to their internal development and the part they play in world politics. Prerequisite: one of Social Sciences 123, 124, or 128.

## 245 History of the Western Hemisphere 3 sem. hrs.

For those who wish to enrich their knowledge of the history of the Western Hemisphere, with orientation toward Latin America and Canada. The purpose is to gain an appreciation of the life and cultures of the national groups and to understand the part they play in world affairs. Prerequisite: Social Sciences 123 or 124 or 128.

## 292 American Life and Institutions 3 sem. hrs.

History of the United States from 1865 to the present time. Unit organization, based on life, cultures and special problems of modern America. An evaluation of elementary texts and illustrative materials. For elementary teachers.

## 295 Representative Historical Personages 3 sem. hrs.

Personalities selected from the wide scope of history. Emphasis on period placement, character building, and lasting influence of the historical characters. For the elementary curriculumprimarily for the middle grades. Prerequisite: Social Sciences 135 or 136 and one of Social Sciences 123, 124, or 128.

## 320 European Background of American History 3 sem. hrs.

(Formerly 420)
European origins of American arts and institutions based on an analysis of the American scene and the tracing of European influences to the sources.

## 324 Selected Studies in European History 2 sem. hrs. (Formerly 424)

The field of study will vary every semester according to the interests and needs of students and the availability of instructors. Provided different material is covered, the course may be taken for credit more than once.
331 Lincoln: the Man and His Times 2 sem. hrs. (Formerly 431)
Emphasis on the use of biography and collections of Lincoln materials, both private and public. Attention directed especially toward the work oi Lincoln in Illinois, his leadership during the Civil War, and his relationships with men and events of his time.
333 History of the Mississippi Valley 3 sem. hrs. (Formerly 433)
Study in regionalism. Emphasis on the frontier, population movements, natural resources, and unique economic, political, and social development.

## 337 The United States and the Twentieth Century 2 sem. hrs.

(Formerly 437)
Social, intellectual, political, and economic history of the age of giant industry and international finance, progressive reform and conservative reactions, depression and social experiment, world conflict and the assumption of international responsibilities.

## 338 Selected Studies in American History 3 sem. hrs.

The field of study will vary each semester according to the interests and needs of the students and the availability of instructors. Provided different material is covered, the course may be taken more than once.

## 346 Selected Studies in the History of Asia 2 sem. hrs.

(Formerly 446)
The field of study will vary each semester according to the interests and needs of the students and the availability of instructors. Provided different material is covered, the course may be taken for credit more than once.

## POLITICAL SCIENCE

## 105 Introduction to Political Science 3 sem. hrs.

A factual overview for teacher and citizen. Covers such topics as forms of democracy; other contemporary political systems; the constitutional system of the United States at national, state, and local levels. Also examines policy making, party systems, and the United States as a world power. This course may not be used toward a first, comprehensive, or second field in Social Sciences. It is primarily for freshmen.

## 150 American National Government 3 sem. hrs.

The relationship between the government and the governed; the structural organization of the government; the processes employed in giving protection to life, liberty, and property; and institutions developed to promote the general welfare.

## 151 Political Institutions and Practices in Illinois 2 sem. hrs.

Organization and function of local and state government in Illinois. Emphasis on elections, the role of voters, and the duties and responsibilities of officials. Recommended for students who wish to prepare for the special examination on the constitutions. Also recommended for teachers who wish to organize selected units for teaching the constitutions. Not open to students who have had Social Sciences 255.

## 252 Municipal Problems and Administration 3 sem. hrs.

Growth of cities with the resulting rapid increase of economic, social, and political problems. Attention centered on public safety, public welfare, public works, utilities, finance, city planning, and the various forms of city goverument.

## 253 Political Parties 2 sem. hrs.

American party system as to its development, organization, and activities. Emphasis upon a realistic constructive knowledge of present-day parties.

## 254 International Relations 3 sem. hrs.

Problems of nationalism, imperialism, war, and peace. The growth of international organization is emphasized and the whole material is pointed to the future.

## 255 State and Local Government 3 sem. hrs.

Structure and functioning of state and local governments (counties, townships, aud special districts) ; federal-state, interstate, and state-local relationships and problems. Not open to students who have had Social Sciences 151.

## 256 History of Political Thought 3 sem. hrs.

Designed to acquaint the student with the main trends in the development of Western political philosophy, emphasizing our indebtedness to the great thinkers of the past and present, and discussing their ideas in terms of their significance to us today. Prerequisite: Social Sciences 105 or 150 .

## 257 Public Administration 3 sem. hrs.

Scope, organization and functioning of public administration; administrative behavior and techniques; personnel selection and processes; budgeting; the role of the administrator in politics; evolution and control of administration. Prerequisite: Social Sciences 105 or 150.

## 258 Comparative Government 2 sem. hrs.

(Formerly 457)
To broaden the student's outlook and to familiarize him with the achievements of other political units. The structure and functioning of governments of Great Britain, Germany, France, Russia, China, Japan, Switzerland, and other small states.

## sociology and anthropology

## 106 Introduction to Sociology 3 sem. hrs.

A descriptive and factual overview of man, society, culture, folkways, population, social groups, communities, institutions, social change and selected social problems. This course may not be used toward a first, comprehensive, or second field in Social Sciences. It is primarily for freshmen.

## 166 Principles of Sociology 3 sem. hrs.

Descriptions of groups and institutions, together with their folkways; theory introduced to illustrate and clarify current trends; social changes, with their accompanying problems, examined; the importance and methods of social control emphasized.

## 181 General Anthropology 3 sem. hrs.

An introduction to the fields of anthropology-physical and cultural-providing the student with an opportunity to acquire a mature understanding of the nature of man and his behavior in the societies of the world. Attention is centered on such topics as human evolution, modern races and racism, archeology, the concept of culture, culture-personality relationships, culture change, language in relation to behavior, the application of anthropology to "practical" concern, especially to the field of education.

## 261 The Community 3 sem. hrs.

The structure and functioning of the community, both rural and urban. Changes in the community, leadership in the community, the organization of the community, and the relation of the community to other institutions.

## 262 The Family 3 sem. hrs.

The family in its institutional and historical setting; changes exerted on the family because of mechanization and urbanization. Consideration of the needs of contemporary citizens with a view to establishing wholesome family life.

## 263 Social Disorganization 2 sem. hrs.

Problems of pathological behavior, community disorganizations and their interrelationships. Selected personal and social pathologies and the various frames of reference for viewing these problems.

## 264 Minority Peoples 2 sem. hrs.

Population and immigration, race relations, and the problems arising from the fusion of cultures.

## 265 Surveys and Fieldwork 1-6 sem. hrs.

For advanced students who have had one or more courses in sociology, preferably Social Sciences 261 or 263 . Opportunities are given for making contacts, under supervision, with the social institutions of the community. Admission by consent of the instructor.

## 267 Population 2 sem. hrs.

An analysis of the factors affecting population changes; migration, birth rates, death rates; theories and policies of population numbers and quality; significance of population size, growth, and decline for education, industry, government, and other institutions.

## 268 Sociology of Religion 2 sem. hrs.

Analysis of religious behavior in our own and other societies as an aspect of group behavior common to all societies; consideration of nature, functions, scope, origins of religion; impact of religion on the individual, society, and culture; impact of social forces on religion.

## 282 The American Indian 3 sem. hrs.

Analysis of the social, economic, religious, and artistic developments of various representative American Indian societies. Environmental and historical factors shaping these ways of life; particular attention to Indians as they are today-their reservation cultures, the federal policies toward them, and their future prospects. Prerequisite: Social Sciences 181 or Social Sciences 106 or 166.

## 366 Contemporary Social Movements 2 sem. hrs. (Formerly 466)

Analysis of social unrest as indicative of social disorganization; patterns of collective behavior; structure and functions of social movements. An examination of various types of social movements -religious, political, revolutionary, youth, agrarian, and reform. Analysis of morale, strategy, types of leaders, and control mechanisms.

## 367 Criminology 2 sem. hrs.

(Formerly 467)
Intensive study of the causes of crime and delinquency, together with the recognition, detection, and prevention of criminal acts. Attention given to roles to be assumed by contemporary institutions in preventing crime; also to the evolution of penology and current practices in penal care.

## 368 Public Opinion and Propaganda 3 sem. hrs. (Formerly 558)

Basic implications, modern techniques, and current machinery of communication. Control exercised by the folkways, government, business, religion, motion pictures, radio, and education. Special attention is focused on those phases of the material which are related to the work of the school. May be considered Political Science as well as Sociology.

## 381 Cultural Anthropology 2 sem. hrs.

Examination of family life, economic organization, religion, folklore, social organization, government, language, education, inventions, and art forms of pre-literate peoples as a background for curricular materials in the elementary school.

## 383 Selected Studies in the Cultures of Africa 2 sem. hrs.

(Formerly 483)
Concentrated study of culture patterns of selected groups in Africa. Introduction to the physical characteristics and history of the aboriginal African peoples and study of their social, political, and intellectual life. An analysis of the dynamics of culture change together with the human problems resulting from these changes. Prerequisite: Social Sciences 106, 166, or 181.

## 384 Selected Studies in Anthropology 3 sem. hrs.

The field of study covered will vary each semester according to the interests and needs of the students and the availability of instructors. Provided different material is covered, the course may be taken more than once.

## SOCIOLOGY

(See Social Sciences)

## SPANISH

(See Foreign Languages)

## SPEECH

## TEACHING STAFF

Head of the Department: Charles A. White. Office: Centennial Building, West 218E,

Professors: G. Bradford Barber, Dorathy Eckelmann, Glenn J. Taylor, Charles A. White.

Associate Professors: Ralph L. Smith, George A. Soderberg, Harry E. Stiver.

Assistant Professors: Mabel C. Allen, Charles E. Bickley, Keith C. Davidson, Ted R. Jackson, Robert O. Lupella, Margaret Parett, Doris M. Richards, Stanley G. Rives, Ruth V. Yates.

Instructors: Roy A. Beck, Yvonne M. Bronowicz, Raymond L. Fischer, Marilyn K. Soderberg.

Students electing a first or second field in speech are excused from Speech 110.

GENERAL EDUCATION COURSES
For group I, students must take Speech 110. To meet requirements for group V, students may choose from the following courses in Speech: 123, 130, 141, 160, 202, 324, 333.

## FIRST FIELD REQUIREMENTS IN SPEECH

Courses in Speech must total 34 semester hours. The following specific courses are required: $112,114,123,125,131,132,141,215,281$.

## SECOND FIELD REQUIREMENTS IN SPEECH

Courses in Speech must total 24 semester hours. The following specific courses are required: $112,114,123,125$ or $133,141,215,281$.

## SECOND FIELD REQUIREMENTS IN SPEECH CORRECTION

Students taking a first field in Speech may elect this second field to become certified as Speech Correctionists. The following specific courses are required: Biological Sciences 181, 182; Psychology 232, 331; Speech 311, 318, 319, 350, 351, 371, 372. Student Teaching must be done in the Speech clinic. Two hundred clock hours of clinical work are required. These are ordinarily completed in Education 399.

## COURSES IN SPEECH

## 110 Fundamentals of Speech 3 sem. hrs.

Theory and practice to develop acceptable speech proficiency in the various speaking activities demanded of citizens in a free society. Prerequisite: English 101 and satisfactory completion of the speech usage test.

112 Public Speaking 3 sem. hrs.
Theory and practice in the selection and organization of materials, in the skillful use of language, and in the presentation of various types of speeches.

114 Voice and Articulation 3 sem. hrs.
Voice, speech sounds, and acceptable spoken language; practice in the use of acceptable spoken language.

## 123 Discussion 3 sem. hrs.

Theory and practice in reflective group discussion methods as a means of learning, understanding, and decision-making in a free society.

## 125 Argumentation and Debate 3 sem. hrs.

Theory and practice in the art of advocacy involving analysis, arrangement, and presentation of arguments for the purpose of decision-making and social control.

## 130 Introduction to the Theatre 3 sem. hrs.

A study of the contemporary theatre, the arts which it involves, and the backgrounds from which it developed. May not be used for a first or second field in Speech.

## 131 Stagecraft and Scene Design 3 sem. hrs.

Forms of stage scenery and methods of constructing scenic units. Painting, lighting, and properties. Basic elements of stage design. Laboratory to be arranged with instructor.

## 132 Acting 3 sem. hrs.

Theatre arts from the standpoint of the principles of acting. Studies in pantomime and characterization. Reading and interpretation of plays suitable for community and school production. Two hours of lecture-discussion and two hours of scheduled laboratory each week.

## 133 Play Directing 3 sem. hrs.

Selection of plays, casting, and rehearsal techniques. Studies in stage composition, picturization, characterization, and movement. Students direct scenes from various plays in class. Two hours of lecture-discussion and two hours of scheduled laboratory each week.

## 134 Costuming and Makeup 3 sem. hrs.

Historical survey of costumes and makeup with emphasis on the practical reproduction of both. Laboratory to be arranged with instructor includes pattern drafting, fitting, choice of textiles, basic color and design, and techniques of stage makeup.

## 141 Oral Interpretation of Literature 3 sem . hrs.

Fundamental problems involved in getting meanings from the printed page and interpreting them to an audience by means of vocal and bodily expression. Practice in platform reading of prose and poetry. Prerequisite: Sophomore standing and Speech 110 or 114.

## 160 Introduction to Radio and Television 3 sem. hrs.

History of radio and television, demonstration of studio techniques, analysis of program types, consideration of classroom utilization of broadcasting. Prerequisite: Speech 110 or 112.

## 202 Extempore Speaking 2 sem. hrs.

Applied course in expository and persuasive speaking, intended for the student for whom Speech 110 has provided insufficient speaking skill. Students who have had Speech 321 may not take this course for credit. Prerequisite: Speech 110.

## 212 Speech Correction for Classroom Teachers 3 sem. hrs.

Speech sounds and the mechanism used to produce them; the speech disorders of elementary school children and methods of re-education. Prerequisite: Speech 110.

## 215 Speech Correction 3 sem. hrs.

Common deviations in children's speech, the speech sounds, their production, the production of voice, causes of defective speech, and methods of re-education for cases with delayed speech, articulatory, and phonatory defects. For students with a teaching field in Speech and for students in the Special Education curriculum in Speech Re-education. Prerequisite: Speech 114.

## 231 Stage Design and Lighting 2 sem. hrs.

Nature, function, and aesthetics of scene design and lighting for the stage, with practice in composition. Laboratory to be arranged with instructor. Prerequisite: Speech 131.

## 232 Creative Dramatics 3 sem. hrs.

The creative approach to the use of dramatic activity in the classroom: its objectives, materials, guidance techniques. Adapatation to the needs, interests, and attitudes of each age level from pre-school to junior high school. Observations and projects are required.

## 233 Children's Theatre 3 sem. hrs.

The production of theatre for children: the history of children's theatre; selection and analysis of scripts; problems of directing and acting; special problems of technical production; the organization and management. Laboratory work in the production and performance of children's plays required.

## 239 Dramatic Workshop 3 sem. hrs.

For teachers not having a teaching field in Speech who wish to prepare for directing high school plays. Selection of plays, directing techniques, crew organization, and basic production techniques. Participation in the production of one-act or longer plays.

## 242 Experiencing Books Through Speech Activities 3 sem. hrs.

Book-inspired activities for pupils in the elementary school designed to develop appreciation of literature through creative dramatics, story telling, choral reading, discussion, reporting, and reading aloud, with emphasis on observation and participation. Prerequisite: Speech 110 and English or Library 271 or 272. This course is also offered as Library 242.

## 243 Oral Reading 3 sem. hrs.

Improving the teacher's oral reading; principles for teaching oral reading.

## 261 Radio and Television Workshop 3 sem. hrs.

Projects in script preparation, production, and evaluation with emphasis on the educational program and documentary techniques. Prerequisite: Speech 110 or 112.

## 280 The Teaching of Speech in the Elementary School 3 sem. hrs.

Theory and practice in the oral aspects of the language arts program designed to help teachers utilize the speech arts in the classroom. Includes structural observation and participation in the laboratory school. Prerequisite: Speech 110 or concurrent registration.

## 281 Principles of Speech Education 3 sem. hrs. (Formerly 381)

Philosophy of speech education, classroom speech, extra-class projects, textbook analysis, and professional associations.

## 311 Phonetics 3 sem. hrs.

Sound system of American speech and its standard and sub-standard variations. Practice in transcription and reading using phonetic symbols.

## 317 Speech Clinic 1-6 sem. hrs.

(Formerly 217)
Diagnostic tests and methods of speech re-education applied to those enrolled in the Speech Reeducation Clinic. Students enrolling in this course should have the permission of the instructor. Prerequisite: Speech 212 or 215.

## 318 Clinical Procedures in Speech Correction 3 sem. hrs.

History and development of speech correction, the procedures for setting up and carrying out a public school speech correction program. Evaluation techniques and procedures and their application to various speech disorders and to methods of speech correction.

## 319 Speech Pathology 5 sem. hrs.

(Formerly 219)
Speech disorders arising from structural, neurological, and endocrine pathologies. Psychological problems, including stuttering. Emphasis on diagnostic and therapeutic procedures. Prerequisite: Speech 212 or 215.

## 321 Speech Composition 3 sem. hrs.

Theory and practice in demonstrative, deliberative, and forensic address through a study of theories of style and historically significant models.

## 324 Persuasion 2 sem. hrs.

Study and practice in the art of influencing the beliefs and behavior of men through speech. Eniphasis on the Aristotelian areas of persuasion-logical, personal, and emotional-and the audience in the speech situation. Prerequisite: Speech 110 or 112.

## 328 British and American Public Address 3 sem. hrs. (Formerly 428)

Outstanding speakers of Great Britain and the United States from the beginning of the 18th Century to the present and the main issues which motivated them.

## 333 Modern Drama 3 sem. hrs.

Trends in dramatic literature and theatrical productions from Ibsen to the present day. Reading reports and discussion of the plays of the leading dramatists of Europe, Great Britain, and America. Alternates with Speech 335.

## 334 History and Styles of Stage Costuming 3 sem. hrs.

Concentrated history of costumes from the ancient Egyptian period to the present time. Emphasis on the costume's reflection of cultural and social milieu. Consideration of the costume's practical application to the stage. Laboratory to be arranged with instructor. Prerequisite: Speech 134.

## 335 History of the Theatre 3 sem. hrs.

Background for the study and production of plays including the reading of great plays of different historical periods, a study of the manner in which they were produced, and their relation to the cultural life of the time. Prerequisite: Speech 132.

## 336 Problems in Acting 3 sem. hrs.

Introduction to and practice in the various advanced styles of acting prevalent in the more important periods of theatrical history and native to specific forms of comic and serious drama. Laboratory to be arranged with instructor. Prerequisite: Speech 132.

## 337 Problems in Directing 3 sem. hrs.

Theories and techniques of directing plays of differing forms, styles, and historical periods. Concentration on various aesthetic principles involved in directing in different types of theatres. Laboratory to be arranged with instructor. Prerequisite: Speech 131 and 132.

## 341 Advanced Oral Interpretation of Literature 3 sem. hrs.

The oral study of selected types of literature with emphasis upon drama and poetry; projects in organizing materials; presentation of individual and multiple reading projects. Prerequisite: Speech 141.

## 350 Audiometry and Hearing Aid Selection 2 sem. hrs.

Use of equipment for determining hearing loss; the interpretation of test results; hearing aid selection procedures. An additional class hour is scheduled for laboratory practice.

## 351 Lip Reading and Auditory Training 2 sem. hrs.

Principles and methods of teaching lip reading. Procedures for training in the use of residual hearing. Special speech problems of the hard of hearing. Prerequisite: Speech 350 or consent of Head of Department of Speech.

352 Clinical Practice in Lip Reading and Auditory Training 2 sem. hrs. Practice in teaching lip reading and training in the use of residual hearing with children and adults. Consideration of instructional materials and problems of actual rehabilitation. Prerequisite: Speech 351.

## 356 Conservation of Hearing 2 sem. hrs.

Hygiene of the hearing apparatus. Causes of hearing loss-partial and complete. Types of hearing loss and their effect on the acquisition and retention of speech.

# 370 Psychology of Speech 2 sem. hrs. <br> Speech as visible and audible stimuli and responses, its origin and development, its functions, its fine arts and utilitarian aspects. The speech personality. The nature of various kinds of audiences. Prerequisite: Ten semester hours in speech. 

371 Speech Science 2 sem. hrs.
Principles of physics involved in the production and reception of spoken language.
372 Anatomy and Physiology of Hearing and of Speech 2 sem. hrs.
Anatomy and physiology of the ear and organs of speech beginning with their embryological development; dissection displays, models, slides. Prerequisite: Biological Sciences 181 and 182.

## 381 Teaching of Speech in the Secondary School 2 sem. hrs.

(Formerly 481)
Present trends in the teaching of speech and an evaluation of current teaching materials.

## ZOOLOGY

## (See Biological Sciences)

## *WORKSHOPS

## 193 Workshop 1-6 sem. hrs.

Workshop opportunities are provided for the purpose of permitting experienced elementary-school and secondary-school teachers to work on special problems not covered in any one course offered by the University. Topics for investigation by workshop participants are limited to areas in which the University is able to provide adequate workshop staff. Credit will be given by the department offering the workshop. Prerequisite: Teaching experience and possible departmental requirements in terms of work to be done.
293 Workshop 1-6 sem. hrs.
Same as 193 except for senior-college students, who will be expected to do a more advanced type of work than those working at the junior-college level.

393 Workshop 1-6 sem. hrs.
Advanced workshop for juniors, seniors, and graduate students.

## METCALF ELEMENTARY SCHOOL

## TEACHING STAFF

Director: Vernon L. Replogle. Office: Metcalf Building 146.
Assistant Director: William B. Legge. Office: Metcalf Building 146.
Associate Director and Coordinator of Special Education: Lillie M. Rickman. Office: Fairchild Hall 105.

## Supervising Teachers

Associate Professor: Lucille G. Hagman.
Assistant Professors: Mary Arnold, Ruth L. Cole, Frances L. Damm,

[^10]Louise Farmer, Thomas W. Floyd, Malinda D. Garton, Josephine B. Howard, Elizabeth A. Hughes, Marjorie L. Lewis, Faye E. Mansfield, Inez L. Mauck, Ernest E. Olson, Mary A. Rozum, Alice Sheveland, Ethel G. Stein, Vivian Tasker, Sadie B. Udstuen.

Instructors: Kenneth R. Beckman, Barbara A. Beggs, Dorothy Cox, Dorothy Jacobs, Alfred D. Larson, William B. Legge, Alice L. O’Brien, Frances D. Prince, Evelyn Rex, Luella E. Schultze, Ida G. Weiser, Betty Woodson.

## The Teachers College Board

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## APPOINTED MEMBERS

1957-1983
Mr. Carl Dunbar................................................................... . . .
Mr. William E. Reed. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Oak Park
Mr. Clarence Ropp .................................................................. . . . Normal

1959-1965
Mr. Morton H. Hollingsworth.
Joliet
Mrs. Harriet Lowden Madlener. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Oregon
Mr. Royal A. Stipes, Jr.
Champaign

1961-1967
Mr. William E. McBride. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Chicago
Mr. Noble J. Puffer. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Chicago
Mr. Paul Stone....................................................................... . . . . Sullivan

## EX-OFFICIO MEMBERS

Mr. James A. Ronan, Director of Finance. . . . . . . . . . . . . . . . . . . . . . . . . Springfield
Mr. George T. Wilkins, Superintendent of Public Instruction. . . . . . . . . . . Springfield

## Dr. Frederick H. McKelvey, Executive Officer <br> Springfield

Illinois State Normal University is governed by the Teachers College Board. The Board consists of nine members appointed by the governor for terms of six years, with two ex-officio members designated by law.

# Administrative and Faculty Personnel 

## DIRECTORY OF ADMINISTRATIVE PERSONNEL



Admissions and Records, Director of. . . . . . . . . . . . . . . . . . . . . . . . . Howard J. Ivens
Agriculture Department, Head of. ................................. . . . . Harvey S. Woods
Alumni Relations, Director of. ...................................................
Appointments Bureau, Director of.................................. . . . Harold E. Grbson
Art Department, Head of. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Lous Hoover
Athletics, Director of.............................................. . . . Howard J. Hancock

Business Education Department, Head of. . . . . . . . . . . . . . . . . . . . . . . . Lewis R. Toll
Education and Psychology Department, Head of..................... . Frank Philpot
Elementary Education Division, Director of........................ . Helen M. Nance
English Department, Head of. . . . . . . . . . . . . . . . . . . . . . . . . . . Victor E. Gnmmestad
Extension and Field Services, Director of. . . . . . . . . . . . . . . . . . . . Francis R. Brown

Foreign Student Services, Coordinator of.......................... . Lela Winegarner
Geography Department, Head of. .............................. Arthur W. Watterson
Health and Physical Education (Men) Department, Head of. .Burton L. O'Connor
Health and Physical Education (Women) Department, Head of. . . .Ellen D. Kelly
Health Service
Director. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Dr. Clarence W. Hardy
Assistant Director........................................... . . . Dr. IRving W. Salowrrz
Home Economics Department, Head of............................ Florence P. Davis
Housing, Director of. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Isabelle Terrill
Residence Halls for Men, Director of. . . . . . . . . . . . . . . . . . . . . . . . . Keith L. Scott
Residence Halls for Women, Director of. . . . . . . . . . . . . . . . .Eleanor M. Eckert
Off-Campus Housing, Assistant Director of. . . . . . . . . . . . . . . . . . John P. Wolter
Industrial Arts Department, Head of.............................. Charles B. Porter
Junior College Curriculum, In Charge of. . . . . . . . . . . . . . . . . . . . . . Elden A. Lichty
Junior High School Curriculum, In Charge of. ...................... Helen M. Nance
Laboratory Schools
Metcalf Elementary School, Director of. . . . . . . . . . . . . . . . . . Vernon L. Replogle
Metcalf Elementary School, Associate Director of. . . . . . . . . . Lillie Mae Rickman
Metcalf Elementary School, Assistant Director of. . . . . . . . . . . . . William J. Legge
University High School, Director of. . . . . . . . . . . . . . . . . . . . . . Harry D. Lovelass
University High School, Associate Director of. . . . . . . . . . . . . . . . Ruth C. Huggins
University High School, Assistant Director of. . . . . . . . . . . . . . . . . . . Lewis L. Legg
Libraries, Director of . Robert R. Hertel
Mathematics Department, Head of. Clyde T. McCormict
Museum, Director of Cecilia Peikert Bunney
Music Department, Head of. Howard H. Rye
Physical Sciences Department, Head of. Bernard L. Ryder
Professional Laboratory Experiences, Director of Cecilia J. Lauby
Publicity, Director of Mrs. Gertrude M. Hall
Registrar Esther Kirchhoefer
Social Sciences Department, Head of Benjamin J. Keeley
Special Education Division, Director of Harold R. Phelps
Special Services, Director of Harold E. Gibson
Speech Department, Head of Charles A. White
Students
Men, Dean of. Richard E. Hulet
Men, Assistant Dean of John W. Gmlis
Women, Dean of ..... Anna L. Keaton
Women, Assistant Dean of Christine P’Stmer
Women, Assistant Dean of Dorothy Carrington
Student Financial Aids, Director of Richard J. Smith
Student Union, Director of Bruce T. Kaiser
Summer Session, Director of Arthur H. LarsenVeterans' Services, Director of..John W. Guris
UNIVERSITY COUNCIL

The date in parentheses indicates expiration of term.
Elizabeth Russell (1965), Chairman Eric H. Johnson, ex officio
Arlan C. Helgeson (1964), Arthur H. Larsen, ex officio
Vice Chairman Lewis L. Legg (1964)

DeVerne Dalluge (1965), Secretary
Robert G. Bone, ex officio
Arley F. Gillett (1963)
Hal Gilmore (1963)
Warren R. Harden (1965)

Willard J. McCarthy (1963)
Frank N. Philpot (1964)
Donald M. Prince (1965)
Charles A. White (1964)
Ruth Yates (1963)

## THE FACULTY

The date in parentheses shows the year the person joined the staff of this University. Institutions listed after highest degree are additional schools attended.

Mohammad Abdullah, M.S., (1962)
Instructor in Entomology
B.S., University of Allahabad, India; M.S., The Aligarh Muslim University, India; University of Illinois.

Ellen Maxine Abshire, M.S., (1960) Instructor in Health and Physical Education B.A., Bridgewater College, Bridgewater, Virginia; M.S., Indiana University.

Laura Lombard Addison, M.A., (1962) Assistant Professor of Library Science A.B., M.A., Louisiana State University; M.A., University of Denver.

Frances M. Alexander, A.M., (1945)
Assistant Professor of the
Teaching of Social Sciences
A.B., A.M., University of Illinois; Eastern Illinois University; University of California at Los Angeles.

Mabel Clare Allen, M.A., (1929)
Assistant Professor of Speech A.B., Bradley University; M.A., Northwestern University; Central School of Speech, London; Teachers College, Columbis University; University of Iowa.

Theodore Benjamin Almy, Ed.D., (1948)
Administrative Assistant to the Dean of the Faculty
Associate Professor of the Teaching of English A.B., Dartmouth College; A.M., Duke University; Ed.D., University of Illinois.

Hazelle M. Anderson, M.A., (1960) Assistant Professor of Library Science B.A., Augustana College; B.S. in L.S., University of Illinois; M.A., Northwestern University; University of Colorado.

Hisao P. Arai, Ph.D., (1961) Associate Professor of Parasitology A.B., Ph.D., University of California at Los Angeles; University of British Columbia, Vancouver, Canada

Mary N. Aray, Ph.D., (1961)
Assistant Professor of Zoology B.Sc., University of New Brunswick, Canada; M.A., University of Toronto, Canada; Ph.D., University of California at Los Angeles; University College, London, England.

Mary Susan Arnold, A.M., (1939)
Assistant Professor and Supervising Teacher in the Metcalf School A B., Illinois Wesleyan University; B.Ed., Illinois State Normal University; A.M., University of Michigan; University of Colorado; Teachers College, Columbia University.

Whliam D. Ashbrook, Ph.D., (1947)
Professor of Industrial Arts B.Ed., Illinois State Normal University; M.S., Colorado State College; Ph.D., University of Pittsbargh; Eastora Illinois University.

## G. Bradford Barber, Ph.D., (1944)

Professor of Speech
B.Ed., Western Illinois University; M.A. (Education), M.A. (Speech), University of Iowa; Ph.D., Ohio State University; University of Illinois; University of Southern California.

George Barford, M.A., (1947)
Assistant Professor of Art
B.Ed., University of Wisconsin, Milwaukee; M.A., Teachers College, Columbia University; Ohio State University; University of Illinois; State School of Arts, Crafts, and Design, Stockholm, Sweden.

Buford H. Bass, M.S. in Ed., (1951)
Assistant Professor of Health and Physical Education B.S. in Ed., M.S. in Ed., Illinois State Normal University; University of Illinois; Indiana University.

Adrlan Baucom, M.A., (1957)
Instructor in Mathematics B.S., Murray State College, Murray, Kentucky; M.A., University of Kentucky.
A. Matthew Bazik, M.S. in Ed., (1961)

Instructor in Mathematics
B.S. in Ed., M.S. in Ed., Illinois State Normal University.

Roy A. Beck, M.S., (1960)
Instructor in Speech B.S. in Ed., Southeast Missouri State College; M.S., Southern Illinois University; Washington University.

Kenneth R. Beckman, M.A., (1960) Instructor in Education and Supervising Teacher Neurological Impairment B.A., Iowa State Teachers College; M.A., State University of Iowa.

Frank Bedogne, Jr., Ed.D., (1961)
Assistant Professor of Art
B.S., State Teachers College, Edinboro, Pennsylvania; M.Ed., University of Colorado; A.M., Colorado State College; Ed.D., Pennsylvania State University.

Barbara Ann Beggs, M.A., (1958)
Instructor and Supervising Teacher
Deaf and Hard of Hearing B.A., University of Texas; M.A., Teachers College, Columbia University; University of Illinois.

John H. Behling, Ph.D., (1961) Assistant Professor of Sociology B.Sci., M.S., Ph.D., Ohio State University.

Claude A. Bell, M.Ed., (1956) Assistant Professor of Industrial Arts B.S., Western Kentucky State College; M.Ed., University of Missouri.

Francis B. Belshe, Ph.D., (1948)
Professor of Education B.S. in Ed., A.B., Southwest Missouri State College; M.A., Ph.D., Fale University.

Helen W. Benjamin, M.A., (1946)
Assistant Professor of Business Education B.B.A., Lake Forest College; M.A., Toachers College, Columbia University; University of Chicago; University of Illinois; Bradley University.

Julia Bewsey, M.A., (1960)
Instructor in Library Science
Assistant Librarian
B.A., Butler University; M.A., Indiana University.

Douglas R. Bey, Ph.D., (1944)
Professor of Mathematics
B.A., Cornell College; A.M., Ph.D., University of Illinois.

Charles Eric Bickley, M.S., (1953)
Assistant Professor of Speech
B.S., Indiana State Teachers College; M.S., Unịersity of Wisconsin; University of Illinois; Michigan State University.

Allie Ward Billingsley, Ph.D., (1949)
Associate Professor of Spanish
B.A., M.A., University of Mississippi; Ph.D., University of Illinois; University of Alabama; Sorbonne, Paris, France; Duke University; University of Wisconsin; University of Colorado; Universidad de Puebla, Puebla, Mexico; Universidad de la Habana, Cuba; Western Reserve University; Spanish School, Middlebury College; Universidad de Valencia, Valencia, Spain.
Ruth Bird, M.S., (1950) Assistant Professor of the Teaching of Health and Physical Education B.S., M.S., University of Illinois; University of Southern California.

Ferman Bishop, Ph.D., (1960)
Associate Professor of English
A.B., Wofford College, Spartanburg, South Carolina; M.A., Ph.D., University of Wisconsin.
E. Scott Blankenship, Ph.D., (1956)

Associate Professor of Education B.S., M.A., Ph.D., Ohio State University; Marshall College, Huntington, West Virginia.

Patricia A. Bleidt, M.Mus., (1960)
Instructor in Music
Resident Director of Fell Hall B.Mus., Hendrix College, Conway, Arkansas; M.Mus., University of Oklahoma.

Roger D. Blomgren, M.A., (1949) Assistant Professor of Industrial Arts
B.S. in Ed., Illinois State Normal University; M.A., Colorado State College; University of Illinois.

Mary Evelyn Boaz, M.S., (1959)
Instructor in Home Economics
B.S., M.S., University of Arkansas.

Jill Bohlander, M.A., (1960)
B.A., Illinois Wesleyan University; M.A., University of Illinois.

Robert G. Bone, Ph.D., (1956)
President
Professor of History
B.A., College of Wooster, Ohio ; M.A., Ph.D., University of Illinois.

Harold J. Born, Ph.D., (1961)
Associate Professor of Physics
B.S., Rose Polytechnic Institute, Terre Haute, Indiana; M.S., Ph.D., Iowa State University;

Evansville College, Evansville, Indiana; Virginia Polytechnic Institute, Blacksburg, Virginia.
Harry P. Bowes, M.S., (1961)
Instructor in Psychology
Resident Director of Barton Hall
B.S., B.S. in Ed., M.S., Northwest Missouri State College; University of Missouri; University of Colorado; University of Illinois.

Margaret K. Bradford, M.S., (1951) Assistant Professor of the Teaching of Home Economics B.S., Bradley University; M.S., Colorado State University; University of Illinois.

Paul J. Brand, Ed.D. in Geography, (1958)
Professor of Geography
B.S. in Ed., Kent State University, Ohio; S.M., University of Chicago; Ed.D. in Geography, Teachers College, Columbia University; University of Wisconsin; University of Maryland; University of Heidelberg, Germany; Fenn College, Cleveland, Ohio.

Robert B. Brome, M.A., (1954) Assistant Professor of the Teaching of English A.B., Nebraska State Teachers College, Wayne; M.A., Colorado State College; University of California at Los Angeles; University of Wisconsin; Schutt Krasna School of Professional Writing, Hollywood, California; University of Southern California.

Yvonne Bronowicz, M.F.A., (1961)
Instructor in Speech
B.A., University of Toledo, Toledo, Ohio; M.F.A., University of Texas.

Lynn H. Brown, M.S., (1960) Instructor in Mathematics B.A., Wartburg College, Waverly, Iowa; M.S., State University of Iowa.
R. Elizabeth Brown, Ph.D., (1955) Associate Professor of Psychologu A.B., The Rice Institute; M.A., Ph.D., Northwestern University; University of Hoaston; Graduate Center of the University of Tezas at Houston.

Walter H. Brown, Ph.D., (1955) Professor of Botany
B.Ed., Illinois State Normal University; A.M., Ph.D., University of Illinois.

Richard Gibbs Browne, Ph.D., (1928)
Professor of Social Sciences Director of Institutional Research
A.B., A.M., University of Illinois; Ph.D., Northwestern University; Southern Illinois University; University of Chicago.
*James F. Brubeck, M.A., (1956) Instructor in Business Education
B.S. in Ed., Eastern Illinois University; M.A., Ball State Teachers College; Colorado State College.

Robert J. Brush, Ed.M., (1959)
Instructor in Physical Sciences
B.S., University of Minnesota; Ed.M., Oregon State College, Corvallis; University of Oregon; Syracuse University; University of California.

Rose Burgess Buehler, Ed.D., (1930)
Professor of Education
B.Ed., Mlinois State Normal University ; A.M., University of Chicago; Ed.D., Teachers College, Columbia University; Wheaton College; Northwestern Univorsity.

Cecilia Peikert Bunney, Ph.D., (1945) Director of Museums and
Associate Professor
A.B., Central Michigan College of Education; M.S., University of Michigan; Ph.D., State University of Iowa; University of Colorado.

Jack D. Butt, M.S., (1959)
Instructor in Health and Physical Education B.S., University of Illinois; M.S., Millikin University.

George R. Canning, Jr., Ph.D., (1958)
Associate Professor of English B.A., Missouri Valley College, Marshall, Missouri; M.A., University of Chicago; Ph.D., University of Wisconsin; Yale University.

John R. Carlock, M.S. in Ed., (1951) Assistant Professor of Biological Sciences B.Ed., M.S. in Ed., Illinois State Normal University; University of Illinois; Harvard University; Massachusetts Institute of Technology; University of Wisconsin.

Lessie Carlton, M.S., (1955)
Assistant Professor of Education
B.S., M.S., North Texas State University; University of Houston; University of Illinois.

Dorothy H. Carrington, Ed.D., (1961)
Assistant Dean of Women Assistant Professor of Education B.S., Central Y.M.C.A. College, Chicago; M.S., Northwestern University; Ed.D., Florida State University.

Conrad E. Carroll, M.A., (1957)
Instructor in Mathematics
B.A., Southwestern at Memphis, Tennessee; M.A., Murray State College, Murray, Kentucky; University of Illinois; George Peabody College for Teachers; Purdue University.

[^11]John P. Casey, M.Ed., (1959)
Assistant Professor of Education
A.B., Bethany College, Bethany, West Virginia; M.Ed., University of Pittsburgh;

Ohio State University; Indiana University.
Valjean M. Cashen, Ed.D., (1961) Associate Professor of Psychology B.S., M.S., Southern Illinois University; Ed.D., Colorado State College.

Helen M. Cavanagh, Ph.D., (1946)
Professor of History A.B., Randolph Macon Woman's College, Lynchburg, Virginia; A.M., Ph.D., University of Chicago.

Roger J. Champagne, Ph.D., (1960) Assistant Professor of History
B.S., M.S., Ph.D., University of Wisconsin

Helen Chiles, A.M., (1948) Assistant Professor of Latin
A.B., MacMurray College; A.M., University of Illinois; University of Michigan; College of William and Mary; University of Colorado; University of Missouri; Teachers College, Columbia University; School of Classical Studies American Academy, Rome; University of Wisconsin.

Merton A. Christensen, Ph.D., (1958)
Associate Professor of English
A.B., Columbia Union College, Washington, D.C.; A.M., Ph.D., University of Maryland; George Washington University; University of Hawaii.

Joseph T. Cogdal, A.M., (1927) Associate Professor of Health and Physical Education A.B., James Millikin University; A.M., University of Illinois; Northwestern University; Illinois State Normal University.

Ruth L. Cole, M.A., (1944) Assistant Professor and Supervising Teacher in the Metcalf School B.Ed., National College of Education; M.A., Northwestern University; University of Wisconsin; Washington University; Teachers College, Columbia University.

James E. Collie, P.E.D., (1957)
Associate Professor of Health and
Physical Education B.S., Murray State College, Murray, Kentucky; M.S., P.E.D., Indiana University.

Carol B. Cox, Jr., M.A., (1961)
Assistant Professor of English B.A., Western Michigan University; M.A., University of Michigan.

Dorothy Cox, M.A., (1957)
Instructor and Supervising Teacher in the Metcalf School B.S., University of Missouri; M.A., George Peabody College for Teachers.

Robert L. Cramer, M.S. in Ed., (1958) Assistant Professor of Physical Sciences B.Ed., M.S. in Ed., Illinois State Normal University; University of Illinois; Goorge Peabody College for Teachers.

Doris H. Crank, Ed.D., (1959) Associate Professor of Business Education B.Ed., Illinois State Normal University; M.A., Ed.D., Northwestern University.

Warren S. Crews, M.S. in Ed., (1951)
Assistant Professor of
Health and Physical Education
B.S., Southeast Missouri State College; M.S. in Ed., Illinois State Normal University; University of Illinois; Indiana University.
*Lucile Zeda Crosby, M.S. in L.S., (1940)
Assistant Professor and Assistant Librarian
A.B., Friends University; B.S., M.S. in L.S., Library School, University of Illinois.

[^12]Alfred A. Culver, Ph.D., (1961)
Assistant Professor of Agriculture
B.S., University of Illinois; M.S., Ph.D., Purdue University.

DeVerne H. Dalluge, Ed.D., (1947)
Professor of Physical Sciences
B.Ed., Illinois State Normal University; M.A., Ed.D., University of Kentucky.

Frances L. Damm, M.S. in Ed., (1948)

## Assistant Professor and Supervising Teacher in the Metcalf School

 B.Ed., Wisconsin State College, Platteville; M.S. in Ed., University of Wisconsin; Wisconsin State College, La Crosse; University of Florida; University of Michigan.Keith C. Davidson, M.A., (1959)
Assistant Professor of Speech
B.Ed., Illinois State Normal University; M.A., Teachers College, Columbia University; University of Missouri; Cornell University; Western Illinois University.

Florence Davis, Ph.D., (1952)
Professor of Home Economics Head of the Department of Home Economics B.S., M.S., Iowa State University; Ph.D., University of Chicago; Iowa State Teachers College.

Whllam I. DeWees, Ed.D., (1937)
Professor of Education B.S., A.M., University of Illinois; Ed.D., The Pennsylvania State University; University of Chicago; Fort Hays Kansas Stato College.

Thomas P. Dilkes, Jr., M.A., (1961) Assistant Professor of History B.A., M.A., New York University; State University of Iowa.

Eleanor Dilks, Ph.D., (1952) Professor of Zoology B.A., Earlham College, Richmond, Indiana; M.S., Ph.D., University of Wisconsin; Marine Laboratory, University of Miami.

Claude M. Dlllinger, Ph.D., (1944) Professor of Psychology
B.S., Northeast Missouri State Teachers College; A.M., Ph.D., University of Missouri; Teachers College, Columbia University.

Paul F. Dohrmann, Ph.D., (1961) Assistant Professor of Health and Physical Education A.B., Harris Teachers College, St. Louis, Missouri; M.A., Ph.D., State University of Iowa.

Paul F. Doolin, Ph.D., (1960)
Associate Professor of Zoology
A.B., Illinois College; M.S., University of Illinois; Ph.D., Western Reserve University.

Thomas Jay Douglass, M.S., (1928) Assistant Professor of Agriculture B.S., M.S., University of Illinois; National Agricultural School of France; A.E.F. University, France.

Leven M. Dowdall, M.S. in Ed., (1957) Instructor in Industrial Arts B.S. in Ed., M.S. in Ed., Illinois State Normal University.
*Pauline Drawver, M.A., (1956) Assistant Professor of English B.A., M.A., University of Oklahoma; University of Illinois.

Robert L. Duncan, A.B., (1961)
Assistant Professor of English
A.B., Indiana University.

Leo E. Eastman, Ed.D., (1954) Associate Professor of Education B.Ed., State Teachers College, Moorhead, Minnesota; Ed.D., University of North Dakota.

Scott C. Eatherly, M.S., (1962)
Assistant Professor of English
B.A., Millikin University; M.S., University of Wisconsin; University of Illinois.

[^13]Alice L. Ebel, Ph.D., (1934)
Associate Professor of Political Science A.B., Heidelberg Oollege; A.M., University of Chicago; Ph.D., University of Illinois; Northwestern University; University of Southern California; George Peabody College for Teachers; The American University.

Dorathy Eckelmann, Ph.D., (1945)
Director of Speech Clinic
Professor of Speech
B.S. in Ed., Southeast Missouri State College; A.M., University of Missouri; Ph.D., University of Iowa; Illinois State Normal University.

Albert H. Eckert, M.S., (1955) Assistant Professor of Mathematics B.S. in Ed., Eastern Illinois University; M.S., University of Hlinois.

Eleanor M. Eckert, M.A., (1959)
Assistant Professor of Education Director of Women's Residence Halls

Assistant Dean of Women
B.A., Cornell University; M.A., Teachers College, Columbia University; University of Florids.

Thomas F. Edwards, M.A. in Ed., (1957) Assistant Professor of Physical Sciences B.S. in Ed., Illinois State Normal University; M.A. in Ed., Arizona State University, Tempe; Blackburn College; Michigan State University; University of Illinois.

Sharon Eggers, M.S. in Ed., (1961)
Instructor in Psychology B.S., University of Illinois; M.S. in Ed., Illinois State Normal University.

Alice M. Eikenberry, Ed.D., (1945)
Professor of the Teaching
of Social Sciences
B.A., Iowa State Teachers College; M.A., University of Iowa; Ed.D., Teachers College, Columbia University; Northwestern University.

John K. Ellis, M.P.H., (1953)
Assistant Professor of Biological Sciences B.Ed., B.S., Southern Illinois University; M.P.H., University of Michigan School of Public Health; St. Louis University School of Medicine.
*Margery Ellis, A.M., (1927) Assistant Professor of French Ph.B., A.M., University of Chicago; Sorbonne, University of Paris; Ecole Normale de Seine et Oise, France; Institut Phonetique, University of Paris; Valparaiso University; University of California.

Mary E. Elmendorf, A.M., (1957)
Resident Director of Hamilton Hall and Instructor B.S. in Ed., Northern Illinois University; A.M., University of Illinois; University of Wisconsin.

Robert A. Elson, M.Mus., (1961)
Assistant Professor of Music B.Mus., M.Mus., University of Michigan; Texas Technological College, Lubbock; University of Illinois.

Edna Engberg, M.Ed., (1951) Assistant Professor of Health and Physical Education B.S., University of Minnesota; M.Ed., University of Michigan; University of Colorado; University of Wyoming; University of Illinois; Teachers College, Columbia University.

William H. Engelsman, M.M.E., (1960)
Instructor in Music B.M.E., M.M.E., University of Colorado; University of Illinois.

Gertrude Erbe, M.M., (1949) Assistant Professor of Music
B.M., University of Wisconsin; M.M., Northwestern University; Lawrence College; Teachers College, Columbia University; Juilliard School of Music; American Conservatory of Music, Chicago; Chicago Musical College; University of Illinois; State University of Iowa.

[^14]Raymond W. Esworthy, Ph.D., (1949)
Professor of Business Education
B.S., M.S., Ph.D., University of Illinois.
G. Harlowe Evans, Ph.D., (1946)

Professor of Chemistry
B.S., M.S., Ph.D., University of Michigan; Taylor University; State University of Iowa.

Dorothy Spencer Fagerburg, A.M., (1957)
Assistant Professor and
Assistant Librarian A.B., A.M., Occidental College; B.S. in L.S., University of Southern California.

Louise Farmer, M.S. in Ed., (1951)
Assistant Professor and Supervising
Teacher in the Metcalf School B.S. in Ed., Southeast Missouri State College; M.S. in Ed., University of Illinois; Teachers College, Columbia University.

Dorothy E. Fensholt, Ph.D., (1951)
Professor of Botany
B.S., M.S., Ph.D., Northwestern University; University of Chicago; Oregon Institute Marine Biology, Coos Bay, Oregon; Hopkins Marine Station, Pacific Gr., California.

John W. Ferrell, Ph.D., (1961)
Assistant Professor of Music B.A., Iowa Wesleyan College; M.A., Ph.D., State University of Iowa; St. Olaf College, Northfield, Minnesota.

Eileane D. Fielding, M.S. in Ed., (1961)
Instructor in English
B.S. in Ed., M.S. in Ed., Illinois State Normal University; Arizona State College, Tempe.

Howard I. Fielding, Ph.D., (1944) Professor of English A.B., Mt. Union College; Ph.D., University of Wisconsin; Denison University.

Raymond L. Fischer, M.S. in Ed., (1958)
Instructor in Speech B.S. in Ed., M.S. in Ed., Eastern Illinois University.

James L. Fisher, M.S. in Ed., (1960)
Instructor in Education Assistant Director of Admissions B.S. in Ed., M.S. in Ed., Illinois State Normal University; Northwestern University; James Millikin University; University of Illinois.

Elinor Bertha Flagg, M.S., (1925) Assistant Professor of Mathematics B.S., M.S., University of Illinois; Eastern Illinois University; University of Chicago; University of Colorado; Washington University.

Thomas W. Floyd, M.S. in Ed., (1954) Assistant Professor and Supervising Teacher in the Metcalf School B.S. in Ed., M.S. in Ed., Southern Illinois University; University of Illinois.

George P. Foeller, M.A., (1960) Instructor in Music B.A., M.A., University of Connecticut; University of Miami, Coral Gables, Florida.

Thelma Gladys Force, M.A., (1932)
Assistant Professor of Psychology
B.S., M.A., University of Minnesota; University of Chicago; State Teachers College, Moorhead, Minnesota; State Teachers College, St. Cloud, Minnesota; Teachers College, Columbia University; University of Illinois.

Jeanne Anne Foreman, M.A., (1958)
Instructor in French
B.A., M.A., University of Illinois.

Bernice G. Frey, Ph.D., (1930) Professor of Health and Physical Education
B.A., Ohio Wesleyan University; A.M., Ohio State University; Ph.D., University of Iowa; University of Wisconsin; University of California; University of Colorado.

Ruth M. Freyberger, Ed.D., (1951)
Associate Professor of Art
B.S., State Teachers College, Kutztown, Pennsylvania; M.Ed., Ed.D., The Pennsylvania State University; University of Iowa; University of Pennsylvania; Columbia University; University for Foreigners, Perugia, Italy.

Walter H. Fredhoff, Ph.D., (1958)
Associate Professor of Psychology
B.A., M.A., University of South Dakota; Ph.D., State University of Iowa; Augustana College, Sioux Falls, South Dakota; University of Minnesota; University of Southern California.

William Frinsko, Ed.D., (1961)
Assistant Professor of Education B.S., University of Illinois; M.A., University of Wyoming; Ed.D., Wayne State University, Detroit, Michigan.

Harold Eugene Frye, M.A., (1931) Assistant Professor of Health and Physical Education B.Ed., University of Akron; M.A., New York University; Ohio State Univeraity; Indiana University.

Beryl Galaway, A.M.L.S., (1948) Assistant Professor and Assistant Librarian A.B., Illinois College; B.S. in L.S., University of Illinois; A.M.L.s., University of Michigan; School of Library Service, Columbia University.

Mary G. Gallagher, M.M., (1958)
Instructor in Music Mus.B., Oberlin College, Oberlin, Ohio; M.M., Michigan State University; University of Toledo.

Malinda D. Garton, A.M., (1950) Assistant Professor and Supervising Teacher - Mentally Retarded, Intermediate B.A., University of Oklahoma; A.M., Colorado State College of Edncation; Bradley University; Illinois State Normal University; University of Illinois; Pacific University.
C. J. Glanakaris, Ph.D., (1961)

Assistant Professor of English
A.B., M.A., University of Michigan; Ph.D., University of Wisconsin.

Harold E. Gibson, Ed.D., (1950)
Director of Division of Special Services
Director of the Bureau of Appointments
Professor of Education
A.B., Illinois College; A.M., Ed.D., University of Missouri; Western Illinois University.

Arley Frederick Gillett, P.E.D., (1944)
Professor of Health
and Physical Education
B.Ed., Illinols State Normal University; M.A., New York University; P.E.D., Indiana University.

John W. Gnuls, Ph.D., (1959) Assistant Dean of Men Assistant Professor of Psychology A.B., M.A., University of Illinois; Ph.D., Purdue University; Institute of Eduoation, University of London, England.

Hal M. Gпmore, M.A., (1956)
Assistant Professor of Mathematics A.B., M.A., Western Kentucky State College, Bowling Green; University of Illinoim.

Victor E. Gimmestad, Ph.D., (1948)
Professor of English
Head of the Department of English
B.A., St. Olaf College; M.A., Ph.D., University of Wisconsin; University of Southern California.

William J. Gnagey, Ph.D., (1961)
Associate Professor of Psychology B.S., M.Ed., Ph.D., Wayne State University, Detroit, Michigan; Manchester College, North Manchester, Indiana.
R. U. Gooding, Ph.D., (1931)

Professor of Chemistry
B.S., Ph.D., University of Wisconsin.

Assistant Professor of Music
Bruce M. Govich, M.Mus., (1960)
B.Mus.Ed., Baldwin-Wallace College, Berea, Ohio; M. Mus., University of Illinois; Texas Christian University.

Charles E. Gray, Jr., M.A., (1959) Assistant Professor of Social Sciences B.A., Southwest Missouri State College, Springfield; M.A., University of Arkansas; University of Missouri; University of Illinois.

Miriam Gray, Ed.D., (1946) Professor of Health and Physical Education A.A., Cottey College; B.S. in Ed., University of Missouri ; M.A., Ed.D., Teachers College, Columbia University.

Nina E. Gray, Ph.D., (1935)
Professor of Biological Sciences
B.A., DePauw University; M.A., Ph.D., University of Wisconsin; M.S.P.H., University of North Carolina; Marine Biological Laboratories, Massachusetts; University of Wisconsin Medical School.

John William Green, M.S., (1939) Assistant Professor of Agriculture B.S., Purdue University; M.s., University of Illinois; University of Chicago.

Glen E. Greenseth, M.A., (1960)
Instructor in Physical Sciences
B.S., Wisconsin State College, Eau Claire; M.A., Washington University; University of Wisconsin; St. Olaf College.

Ivo P. Greif, Ed.D., (1961) Associate Professor of Education B.A., Loras College, Dubuque, Iowa; M.A. (Educ. Admin.), M.A. (Educ.), State University of Iowa; Ed.D., Wayne State University, Detroit, Michigan; Johns Hopkins University, Baltimore, Maryland; University of Dubuque, Dubuque, Iowa; Iowa State Teachers College.

Esther M. Griffith, Ph.D., (1947)
Professor of Chemistry
A.B., A.M., University of Missouri ; Ph.D., University of Illinois.

Laurel Ann Grotzinger, M.S., (1958)
Instructor and Assistant Librarian
B.A., Carleton College, Northfield, Minnesota; M.s., University of Illinois.
*Stanley E. Grupp, M.A., (1957) Assistant Professor of Sociology B.A., Iowa State Teachers College; M.A., State University of Iowa; University of Hinois.

Edna May Gueffroy, Ph.D., (1929)
Professor of Geography
B.Ed., Illinois State Normal University; A.M., Clark University; Ph.D., University of Washington; University of Chicago; University of Hawaii.

Clara Loutse Guthrie, M.S. in L.S., (1932)
Assistant Professor and Assistant Librarian A.B., Hastinga College ; B.s., M.s. in L.s., Library School, Univeraity of Illinois.

Perry Hackett, M.Mus., (1949)
Assistant Professor of Music
B.Mus., M.Mus., Northwestern University; University of Wisconsin; Juilliard School of Music; The American Art Schools, Fontainebleau, France; University of Illinois; Oklahoma State University.

Dean S. Hage, Ph.D., (1959)
Associate Professor of Education
B.A., University of Arizona; M.A., Ph.D., State University of Iowa; St. Olaf College.

Lucile G. Hagman, Ed.D., (1950) Associate Professor and Supervising Teacher in the Metcalf School
B.E., Northern Illinois University; M.A., Northwestern University; Ed.D., University of Colorado.

[^15] B.S., M.S., University of Wisconsin; Indiana University; University of Illinois.

Albert S. Hanser, M.A., (1961)
Assistant Professor of History A.B., Wayne State University, Detroit, Michigan; M.A., University of Chicago; University of Munich, Munich, Germany.

Warren R. Harden, M.A., (1954) Assistant Professor of Economics B.A., Iowa State Teachers College; M.A., University of Colorado; Indiana University.

Doris Hardine, M.M., (1947)
Assistant Professor of Music
B.M., Cornell College; M.M., Eastman School of Music; Claremont College, Claremont, California; University of Illinois.

Clarence Woodson Hardy, M.D., (1953) Director of the University Health Service and Professor M.D., University of Michigan Medical School; University of Minnesota Post-Graduate School.

Archibald Harris, M.A., (1957)
Assistant Professor of Health and Physical Education B.8., Gustavas Adolphus College, St. Peter, Minnesota; M.A., State University of Iowa; Virginia Junior College, Virginis, Minnesota; George Williams College; University of Illinois.

Rodney E. Harris, M.A., (1962) Assistant Professor of French A.B., Kenyon College, Gambier, Ohio; M.A., Ohio State University; Duke University, Durham, North Carolina; University of Wisconsin.

Richard R. Hart, M.S., (1961) Assistant Professor of Geology B.A., Cornell College, Mount Vernon, Iowa; M.S., State University of Iowa.
W. Douglas Hartley, M.F.A., (1954) Assistant Professor of Art B.S., M.F.A., Indiana University; M.F.A., Kansas City Art Institute; University of Michigan; New York University.

Charles H. Hartman, M.A., (1959) Assistant Professor of Safety Education B.S. in Ed., State Teachers College, Millersville, Pennsylvania; M.A., Michigan State University.

John Heissler, Ph.D., (1961)
Associate Professor of English B.A., Elmhurst College; M.A., University of Wyoming; Ph.D., University of Illinois.

Carl D. Heldt, M.P.E., (1948) Assistant Professor of Health and Physical Education B.S., M.P.E., Purdue University; Indiana University.

Arlan C. Helgeson, Ph.D., (1951)
Professor of History B.S., Wisconsin State College, La Crosse; M.S., Ph.D., University of Wisconsin.

Ruth Henline, Ph.D., (1926)
Professor of English
A.B., Illinois Wesleyan University; B.Ed., Illinois State Normal University; M.A., Teachers College, Columbia University; M.A., Ph.D., Northwestern University.

Henry J. Hermanowicz, Ed.D., (1959) Assistant Professor of Education B.S. in Ed., M.S. in Ed., Northern Illinois University; Ed.D., Teachers College, Columbia University; University of Chicago; Northwestern University.

Robert R. Hertel, Ph.D., (1959)
Director of Libraries Professor of Library Science A.B., B.S. in L.S., New York State Teachers College, Albany; M.A., University of California, Los Angeles; Ph.D., University of Illinois.

Charles R. Hicklin, Ed.D., (1960) Associate Professor of Education A.B., Drury College, Springfield, Missouri; A.M., Ed.D., University of Illinois.
*Herbert Reynolds Hiett, Ph.D., (1937) Professor of English A.B., Nebraska Wesleyan University; A.M., University of Nebraska; Ph.D., University of Maryland.

Grace Hler, M.A., (1951) Assistant Professor of the Teaching of English B.A., M.A., University of Iowa; Cornell College; Iowa State Teachers College; University of Colorado.

Eugene Leonard Hill, Ed.D., (1930) Professor of Health and Physical Education B.Ed., Illinois State Normal University; M.A., University of Iowa; Ed.D., Colorado State College of Education.
Max L. Hillmer, Ph.D., (1962)
Assistant Professor of Psychology B.S., Northwestern University; M.S., Ph.D., University of Washington; Purdue University; Wayne State University, Detroit Michigan.
J. Alan Holman, Ph.D., (1961)

Associate Professor of Vertebrate Zoology and Herpetology A.B., Franklin College of Indiana; M.S., Ph.D., University of Florida.

Dennis N. Homan, Ph.D., (1960)
Assistant Professor of Botany B.A., M.S., Ph.D., State University of Iowa

Max L. Honn, M.S., (1932)
Assistant Director of University Press
Instructor in Printing
A.B., Illinois Wesleyan University; M.S., The Pennsylvania State University; University of Illinois.
F. Lours Hoover, Ed.D., (1944)

Professor of Art
Head of the Department of Art B.S., North Texas State University; M.A., Teachers College, Columbia University; Ed.D., New York University; New School for Social Research and the Art Students League.
Frank D. Horvay, Ph.D., (1960)
Professor of German
Head of the Department of Foreign Languages A.B., A.M., University of Alabama; Ph.D., Washington University; University of California; University of Chicago.
Dorothy Hostettler, M.S. in Ed., (1959)
Instructor and Supervisor of Off-Campus Student Teaching B.A., Illinois Wesleyan University; M.S. in Ed., Illinois State Normal University.

Josephine B. Howard, M.A., (1950) Assistant Professor and Supervising Teacher in the Metcalf School B.8., University of Kansas; B.E., National College of Education; M.A., Michigan State University; Columbia University; University of Illinois.

[^16]Verna A. Hoyman, M.A. in Ed., (1946)
Assistant Professor of English
B.A., Iowa State Teachers College; M.A. in Ed., Northwestern University; University of

Iowa; University of Chicago; University of Colorado; University of Minnesota.
Benjamin Hubbard, Ed.D., (1961) Associate Professor of Education B.S., M.A., Ed.D., University of Alabama.

Wayne V. Huebner, M.A., (1960)
Assistant Professor of English
B.A., M.A., University of Minnesota; Moorhead State College, Moorhead, Minnesota; North Dakota State College, Fargo.

Ruth Charlotte Huggins, Ed.M., (1937) Associate Director of University High School
Assistant Professor of the Teaching of English
A.B., Knox College; A.M., University of Illinois; Ed.M., Harvard University; Wellesley College; University of Chicago.
Elizabeth A. Hughes, M.Ed., (1954) Assistant Professor and Supervising Teacher - Partially Sighted B.S. in Ed., M.Ed., Wayne State University; University of Wisconsin; Illinois State Normal University; University of Illinois; Northern Illinois University.

Richard E. Hulet, Ed.D., (1956)
Dean of Men
Associate Professor of Education
B.S., M.S., Ed.D., University of Illinois.

Samuel Hutter, M.S., (1955) Assistant Professor of Psychology A.B., George Washington University; M.S., University of Illinois.

Virgil R. Hutton, M.A., (1960) Assistant Professor of English B.A., Southwestern College, Winfield, Kansas; M.A., University of Michigan.

Lucile Hyneman, A.M., (1959)
Assistant Professor of English A.B., Illinois Wesleyan University; A.M., Columbia University; Ward-Belmont, Nashville, Tennessee; King's College, University of London, England; University College, University of London, England.

Thaddeus C. Ichnowski, Ph.D., (1961) Assistant Professor of Chemistry B.S., Washington College, Chestertown, Maryland; M.S., Ph.D., Purdue University.

Richard F. Irvin, M.S. in Ed., (1961) Instructor in Health and Physical Education B.S., Slippery Rock State College, Pennsylvania; M.S. in Ed., Illinois State Normal University; Ohio State University.

Leslie M. Isted, Ph.D., (1940) Professor of Music B.M.E., Northwestern University; A.M., Ph.D., Indiana University; Oregon State College; University of Oregon; Butler University; Oberlin Conservatory of Music.

Howard J. Ivens, Ph.D., (1934)
Director of Admissions and Records
Professor of Physical Sciences
A.B., Northern Michigan College of Education; A.M., Ph.D., University of Michigan; University of Minnesota.
*Ruth A. Ivey, A.M., (1957) Assistant Professor of English
B.A., A.M., University of Illinois; University of Munich, Germany; University of Wisconsin; Leland Stanford University.

[^17]Bryant H. Jackson, M.S. in L.S., (1960)
Assistant Professor of Library Science and Assistant Librarian B.A., University of Redlands, Redlands, California; M.S. in L.S., University of Southern California; University of California at Los Angeles.

Donette D. Jackson, M.A., (1960)
Instructor in Business Education
A.B., Murray State College, Murray, Kentucky; M.A., University of Kentucky; Union University, Jackson, Tennessee.

Harry O. Jackson, M.S. in Ed., (1955) Assistant Professor of Biological Sciences B.S. in Ed., M.S. in Ed., Illinois State Normal University; University of Wisconsin; University of Illinois.

Ted R. Jackson, Ph.D., (1960)
Assistant Professor of Speech B.A., Texas Christian University; M.S., Ph.D., University of Wisconsin.

Dorothy Jacobs, A.M., (1959)
Instructor and Supervising Teacher in the Kindergarten A.B., A.M., Colorado State College; University of Nebraska; State Teachers College, Wayne, Nebraska.

Jeannie H. James, M.S., (1959) Assistant Professor of Home Economics B.S., Berea College, Berea, Kentucky; M.S., University of North Carolina; Iowa State University; Florida State University; Pennsylvania State University.

Marie Jessa, M.A., (1946)
Assistant Professor of Business Education
B.Ed., Illinois State Normal University; M.A., University of Iowa; University of Missouri; University of Illinois.

Milford C. Jochums, Ph.D., (1948)
Professor of English A.B., A.M., Ph.D., University of Illinois; Illinois Wesleyan University; Wheaton College; North Carolina State College of Agriculture and Engineering.

Blossom Johnson, Ed.D., (1945)
Professor of Home Economics
B.S., The Stout Institute; M.A., Louisiana Stato University; Ed.D., University of Missouri.

Eric H. Johnson, Ed.D., (1958) Administrative Assistant to the President Professor of Education B.Ed., Illinois State Normal University; M.A., Ed.M., Ed.D., University of Illinois.

John L. Johnston, Ed.D., (1956)
Professor of Industrial Arts
B.S., M.S., Kansas State Teachers College, Pittsburg; Ed.D., University of Missouri; Harvard University; Massachusetts Institute of Technology.

Lucile Q. Jones, M.S. in Ed., (1958)
Instructor in Education
B.Ed., National College of Education; B.Ed., M.S. in Ed., Illinois State Normal University; Illinois Wesleyan University; University of Chicago; University of Illinois.

Margaret L. Jones, Ph.D., (1956) Associate Professor of Health and Physical Education B.S., University of Oklahoma; M.S., Smith College, Northampton, Massachusetts; Ph.D., University of Wisconsin.
*Margaret Jorgensen, M.A., (1949) Assistant Professor of Psychology A.B., University of California; M.A., University of Denver; Colorado State College of Education.

Jacqueline Q. Karch, Ed.D., (1957) Associate Professor of Home Economics B.Ed., Illinois State Normal University; M.S. in Ed., University of Illinois; Ed.D., Washington University.

[^18]Ila Karr, M.A., (1952)
Assistant Professor and Assistant Librarian
B.Ed., Illinois State Normal University; M.A., University of Denver Library School; University of Illinois.

Anna Lucile Keaton, Ph.D., (1937) Dean of Women
Professor of English
A.B., Southwestern College, Winfeld, Kansas; A.M., University of Kansas; Ph.D., University of Chicago.
Benjamin J. Keeley, Ph.D., (1952)
Professor of Sociology
Head of the Department of Social Sciences A.B. in Ed., Nebraska State Teachers College, Kearney; M.A., Ph.D., University of Nebraska; Catawba College, North Carolina; University of Wisconsin.

Burton C. Kelly, M.S., (1958)
Assistant Professor of Psychology B.S., Idaho State College; M.S., Brigham Young University; University of Chicago; The Merrill-Palmer School, Detroit, Michigan; Utah State University.

Ellen D. Kelly, Ph.D., (1957) Professor of Health and Physical Education Head of the Department of Health and Physical Education for Women B.A., M.S., Wellesley College; Ph.D., State University of Iowa; Teachers College, Columbia University; University of Oklahoma; Boston University.

Francis C. Kenel, M.A., (1961)
Assistant Professor of Industrial Arts B.S., M.A., Michigan State University.
*Betty Jean Keough, M.S. in Ed., (1952)
Assistant Professor of Health and Physical Education B.S. in Ed., Butler University; M.S. in Ed., Illinois State Normal University; Indiana University; University of Illinois.
Kenneth E. Kerle, M.A., (1961) Assistant Professor of Political Science A.B., Washburn Municipal University, Topeka, Kansas; M.A., American University, Washington, D.C.

John A. Kinneman, Ph.D., (1927)
Professor of Sociology
A.B., Dickinson College; A.M., University of Pennsylvania; Ph.D., Northwestern Univer sity; State Teachers College, West Chester, Pennsylvania; University of Chicago.
Esther E. Kirchhoefer, M.A., (1949)
Registrar
Instructor in Education
A.B., Valparaiso University; M.A., University of Chicago.

George C. Klinger A.M., (1962)
Assistant Professor of English A.B., New York University; A.M., Columbia University.

Homer T. Knight, Ed.D., (1957) Associate Professor of Education A.B., M.A., University of Washington; Ed.D., Teachers College, Columbia University.

Robert W. Koehler, A.M., (1961) Instructor in Health and Physical Education B.S., Wartburg College, Waverly, Iowa; A.M., Colorado State College; State University of Iowa.
Harold F. Koepke, Ph.D., (1934)
Professor of Business Education
B.Ed., Wisconsin State College, Whitewater; M.A., Ph.D., University of Iowa; University of Illinois: Northwestern University.

Walter S. G. Kohn, Ph.D., (1956) Associate Professor of Political Science B.Sc., University of London; M.A., Ph.D., New School for Social Research, New York, New York.

[^19]Brigitta J. Kuhn, Ph.D., (1961)
Associate Professor of French
B.Ed., Eastern Illinois University; M.A., Laval University, Quebec, Canada; Ph.D., Sorbonne, University of Paris, France.

Lowell J. Kuntz, M.S. in Ed., (1949)
Assistant Professor of Music
B.S. in Ed., M.S. in Ed., Illinois State Nornal University; Eareka College; University of Hlinois.

Clarence H. Kurth, Ed.D., (1951) Associate Professor of Education B.Ed., Wisconsin State College, Whitewater; A.M., University of Chicago; Ed.D., Indiana University; University of Southern California.
Norene Kurth, M.B.A., (1953) Instructor in Business Education
A.B., Indiana State College, Terre Haute; M.B.A., University of Chicago; University of Colorado; University of California at Los Angeles.

Kermit M. Laidig, Ph.D., (1955) Associate Professor of Geography B.s. in Ed., State Teachers College, Shippensburg, Pennsylvania; M.A., Ph.D., University of Nebraska.

Carolyn J. Lambert, M.A., (1961)
Instructor in Music
B.A., Davis and Elkins College, Elkins, West Virginia; M.A., Teachers College, Columbia University; Universita per Stranieri, Perugia; Santa Cecilia Conservatorio, Rome, Italy; The Accademia Musicale Chigiana, Siena, Italy.
Arthur Hoff Larsen, Ph.D., (1935)
Vice-President Dean of the Faculty Professor of Education B.Ed., Wisconsin State College, Superior; Ph.M., Ph.D., University of Wisconsin; University of Chicago.

Alfred Larson, M.S., (1961)
Instructor and Supervising Teacher
Deaf and Hard of Hearing B.S. in Ed., Illinois State Normal University; M.S., University of Illinois.

Cecilia J. Lauby, Ed.D., (1949) Director of Professional Laboratory Experiences Professor of Education A.B., St. Mary-of-the-Woods College; M.S., Ed.D., Indiana University; Northwestern University; Indiana State Teachers College.
Margaret Lawrence, M.A., (1939) Assistant Professor and Assistant Librarian B.A., University of Nebraska; B.S. in L.S., Library School, University of Illinois; M.A., University of Nebraska.
Kenneth L. Ledbetter, M.A., (1959) Assistant Professor of English A.B., Central College, Fayette, Missouri; M.A., University of Illinois; University of Missouri.

William J. Lee, M.F.A., (1958)
Instructor in Art A.B., Kent State University, Ohio; M.F.A., State University of Iowa.

Lewis L. Legg, M.A. in Ed., (1957) Assistant Director of University High School Instructor in Physical Sciences B.Ed., Western Illinois University; M.A. in Ed., University of Illinois.

William B. Legge, M.S. in Ed., (1957) Assistant Director of Metcalf School Instructor and Supervising Teacher in Junior High School B.s. In Ed., M.S. in Ed., Illinois State Normal University; University of Illinois.

Marjorie L. Lewis, M.A., (1951) Assistant Professor and Supervising Teacher

- Physically Handicapped B.A., M.A., State University of Iowa; Washington University; University of Minnesota.

Anthony E. Liberta, Ph.D., (1961)
Assistant Professor of Mycology A.B., Knox College; M.S., Ph.D., University of Illinois.

Elden A. Lichty, Ed.D., (1945) Professor of Education B.S. in Ed., Northeast Missouri State Teachers College; A.M., Ed.D., University of Missouri; University of Iowa.

William R. Lidh, M.S., (1957)
Instructor in Art
B.S., M.S., University of Wisconsin.

Lois Lilly, M.S., (1957)
Assistant Professor of Education
B.S. in Ed., Illinois State Normal University; M.S., University of Illinois; Western Illinois University; Eastern Illinois University; University of Colorado.

Harry D. Lovelass, Ed.D., (1946)

## Director of University High School

 Professor of Education B.Ed., Eastern Illinois University; A.M., Ed.D., University of Illinois; Pd.D., Eastern Illinois University.William R. Lueck, Ph.D., (1936) Professor of Education B.A., M.S., University of North Dakota; Ph.D., University of Iowa.

Hattie C. Lundgren, M.S., (1955) Assistant Professor of Home Economics B.Ed., Illinois State Normal University; M.S., Iowa State College; Teachers College, Columbia University; University of Chicago; Cornell University; University of Illinois; University of Colorado; University of Tennessee.

Robert O. Lupella, M.A., (1961) Assistant Professor of Speech B.S. in Ed., M.A., Southern Illinois University; Iorthwestern University.

Norman Luxenburg, Ph.D., (1959)
Associate Professor of Russian
A.B., University of Michigan; A.M., University of Zurich, Switzerland; A.M., Ph.D., University of Michigan.
G. Laurene Mabry, M.S. in Ed., (1960) Instructor in Health and Physical Education B.S. in Ed., Northwestern University; M.S. in Ed., Purdue University; Eastern Illinois University.

Jane Maddocks, M.A., (1959)
Instructor in English
B.A., Colby College, Waterville, Maine; M.A., Bowling Green State University, Ohio; Ohio State University.

Normand W. Madore, Ed.D., (1961) Assistant Professor of Education Coordinator of Off-Campus Student Teaching B.S. in Ed., Plymouth Teachers College, Plymouth, New Hampshire; M.S. in Ed., Indiana University; Ed.D., Wayne State University, Detroit, Michigan; State University of Iowa; University of Missouri.

Henry R. Manahan, Ph.D., (1961)
Associate Professor of Latin A.B., M.A., Ph.D., Northwestern University.

Faye E. Mansfield, M.A., (1947) Assistant Professor and Supervising Teacher in the Metcalf School B.Ed., Illinois State Normal University; M.A., Teachers College, Columbia University; University of Missouri; University of Hawaii; University of Arizona.

Helen E. Marshall, Ph.D., (1935)
Professor of History
A.B., College of Emporia; A.M., University of Chicago; Ph.D., Duke University; University of Colorado.
J. Lours Martens, Ph.D., (1947)

Professor of Botany A.B., Indiana Central College; A.M., Ph.D., Indiana University.

Marjorie F. Martin, M.S. in Ed., (1956)

# Instructor in Health and Physical 

 Education-Physical Therapist B.Ed., M.S. in Rd., Ilinois State Normal University; Walter Reed General Hospital, Washington, D.C.; Duke University, Durham, North Carolina.Stanley S. Marzolf, Ph.D., (1937)
Director of Counseling Services
Professor of Psychology
A.B., Wittenberg University; A.M., Ph.D., Ohio State University.

Inez L. Mauck, A.M., (1951) Assistant Professor and Supervising Teacher in the Metcalf School B.İd., Illinois State Normal University; A.M., University of Iuinois; University of Chicago; Teachers College, Columbia University.

Denton B. May, M.A., (1959)
Assistant Professor of English A.B., University of California; M.A., University of Michigan; Utah State University.
*Bernard J. McCarney, M.S., (1958)
Instructor in Economics B.s. in Ed., Illinois State Normal University; M.S., University of Illinois; Joliet Junior College.

Willard J. McCarthy, Ed.M., (1955) Assistant Professor of Industrial Arts B.8., Stout State College ; Ed.M., Oniversity of Illinois.

Clyde T. McCormice, Ph.D., (1944)
Professor of Mathematics
Head of the Department of Mathematics
A.B., A.M., University of Mlinois; Ph.D., Indiana University; Eastern Illinois University; University of Michigan.

Kaye McDonald, M.S., (1960) Instructor in Health and Physical Education
B.S., University of Utah; M.S., University of Colorado; Weber Junior College, Ogden, Utah.

Mary McMullan, Ed.M., (1961)
Assistant Professor of Art
B.E. in Ed., Ed.M., University of Missouri; School of Art Institute of Chicago; Illinois Institute of Technology; Northwestern University; University of Hawaii.

Loren W. Mentzer, Ph.D., (1957)
Associate Professor of Botany
B.S.E., M.S., Kansas State Teachers College, Emporia; Ph.D., University of Nebraska; University of Colorado Field Station; University of Minnesota Field Station.

Robert L. Metcalf, M.Ed., (1961) Instructor in Health and Physical Education Director of University High School Athletics
B.S., Valparaiso University; M.Ed., University of Illinois; Wittenberg University, Springfield, Ohio; Indiana University; University of Michigan; Northern Illinois University.

Winifred Schlosser Metzler, M.A., (1947)
Assistant Professor and Assistant Librarian B.S. in Ed., B.S. in L.S., University of Illinois; M.A., University of Chicago; Eureka College; University of Southern California; The School of the Art Institute, The Art Institute of Chicago.

Ralph A. Meyering, Ph.D., (1961)
Associate Professor of Psychology B.S., Mankato State College, Minnesota; M.A., Northwestern University; Ph.D., State University of Iowa; Michigan State University.

Joanna Mdtlyng, M.S., (1958) Instructor in Health and Physical Education B.A., University of Montana; M.S., University of Washington; University of California.

Marion G. Miller, Ph.D., (1937)
Professor of Art
Ph.B., University of Chicago; M.A., University of California; Ph.D., Ohio State University; University of Illinois; Academy of Fine Arts, Chicago; Summer School of Painting, Saugatuck, Michigan; Umberto Romano School, East Gloucester, Massachusetts.

[^20]Murray Lincoln Miller, Ph.D., (1950)
Associate Professor of Education
B.S., Bradley University; M.A., Ph.D., University of Pittsburgh; University of Chicago; Ohio State University; Teachers College, Columbia University; Geneva College, Beaver Falls, Pennsylvania; State Teachers College, Slippery Rock, Pennsylvania; Pennsylvania State University; City College of New York.

Louise B. Mini, A.M., (1960)
Instructor in French A.B., A.M., University of Illinois

Joe B. Mitchell, M.A. in L.S., (1961)
Assistant Professor of Library Science
Assistant Librarian B.S., Jacksonville State College, Jacksonville, Alabama; M.A., University of Alabama; M.A. in L.S., George Peabody College for Teachers; University of Florida; Florida State University.
William M. Mitchell, M.S. in Ed., (1961) Instructor in Business Education B.S. in Ed., M.S. in Ed., Western Illinois University; University of Illinois; University of North Dakota.

Orrin J. Mizer, M.A., (1947) Assistant Professor of Biological Sciences B.S. in Ed., M.A., Bowling Green State University; Kent State University; University of Iowa.

Edward L. Mockford, Ph.D., (1960) Assistant Professor of Entomology A.B., Indiana University; M.S., University of Florida; Ph.D., University of Illinois.

Clarence L. Moore, Ph.D., (1961) Assistant Professor of Agriculture B.S., M.S., Ph.D., South Dakota State College.

Harold A. Moore, M.S., (1947) Assistant Professor of Biological Sciences B.8., M.S., University of Illinois.

Robert H. Moore, Ph.D., (1952)
Professor of Education B.A., Marietta College ; M.A., Ph.D., Ohio State University.

Creston D. Munger, M.S., (1960)
Instructor in English B.S. in Ed., M.S., College of Education, Brockport, New York; University of Buffalo; University of Illinois.

Helen M. Nance, Ph.D., (1954)
Professor of Education Director of the Division of Elementary Education A.B., Bradley University; Ph.M., University of Wisconsin; Ph.D., Ohio State University; University of Illinois.

Joseph M. Natale, M.S., (1956) Assistant Professor of Art B.M.E., Evansville College, Evansville, Indiana; M.S., Indiana State Teachers College; Art Institate.

Marita Lee Nelson, M.S., (1960) Instructor in Health and Physical Education B.S., M.S., University of California at Los Angeles; El Camino College, El Camino, California.

- Thelma Nelson, M.A., (1931)

Assistant Professor of English
B.A., Des Moines University; M.A., Teachers College, Columbia University; University of Illinois; University of Colorado; Washington University.

Richard L. Newby, M.A., (1958) Instructor in English
B.A., M.A., Southern Illinois University; Illinois State Normal University; University of Illinois.

Beverly Ann Nichols, M.A., (1961) Instructor in Health and Physical
Education
B.S., Ohio State University; M.S., MacMurray College.

[^21]Edwin E. Niemi, M.S., (1958)
Instructor in Art
B.S., M.S., University of Wisconsin; Northern Illinois University; University of Illinois.

Leroy G. Noel, M.Ed., (1961)
Instructor in Education Assistant Director of Student Financial Aids B.S. in Ed., Illinois State Normal University; M.Ed., University of Illinois.

Stanley K. Norton, Ph.D., (1948) Professor of Education
A.B., Lawrence College; A.M., Ph.D., University of Michigan; University of Wisconsin; State University of Iowa.

Michael P. Novak, M.F.A., (1962) Instructor in English
B.A., Catholic University of America, Washington, D.C.; M.F.A., State University of Iowa.

William J. Nye, M.S. in L.S., (1960) Instructor in Library Science
Assistant Librarian
A.B., Carthage College; M.S. in L.S., University of Illinois; Central Lutheran Theological Seminary, Fremont, Nebraska; Concordia Lutheran Theological Seminary, St. Louis, Missouri.

Mercedes M. Oberlender, M.A., (1960)
Instructor in Spanish B.A., B.S. in Ed., M.A., University of Nebraska.

Alice L. O'brien, M.S. in Ed., (1952)
Instructor in Education
B.S. in Ed., M.S. in Ed., University of Illinois; Northern Illinois University.

Burton L. O'Connor, Ed.D., (1937) Professor of Health and Physical Education Head of the Department of Health and Physical Education for Men B.A., Cornell College; M.A., University of Iowa; University of Illinois; Ed.D., the Pennsylvania State University.

Leon T. Ofchus, Ph.D., (1960) Associate Professor of Psychology
B.S., State Teachers College, East Stroudsburg, Pennsylvania; M.A. in Psych., M.A. in Ed., University of Wyoming; Ph.D., Wayne State University.

Alice Roxanne Ogle, M.A., (1932)
Assistant Professor of Art A.B., Colorado State College; M.A., Teachers College, Columbia University; University of Illinois.

Ernest E. Olson, M.A., (1955) Assistant Professor and Supervising Teacher
Older Mentally Retarded
B.S. in Ed., Illinois State Normal University; M.A., Northwestern University; University of Chicago; University of Illinois.

Andreas Paloumpis, Ph.D., (1956) Associate Professor of Zoology and Fisheries B.S. in Ed., M.S. in Ed., Illinois State Normal University; Ph.D., Iowa State College; University of Illinois.

Donald R. Parker, M.P.H., (1950) Assistant Professor and Inspector of Food Sanitation and Laboratory Technician-

University Health Service
B.S. in Ed., Southern Illinois University; M.S., University of Michigan; M.P.H., Tulane University; University of Illinois.

Louise O'Neil Parker, M.P.H., (1950) Assistant Professor and Nurse
B.S. in Ed., Southern Illinois University; M.P.H., University of Michigan; George Peabody College for Teachers; Cook County School of Nursing; University of Illinois; Indiana University ; Boston University.

Peter A. Parmantie, M.S. in Ed., (1961)
Instructor in English
B.S. in Ed., M.S. in Ed., Illinois State Normal University.

Assistant Professor of Speech B.Ed., Illinois State Normal University; M.A., Teachers College, Columbia University; University of Illinois.

Eva R. Parrish, M.A., (1960) Assistant Professor of Health and Physical Education B.S., Woman's College, University of North Carolina; M.A., University of North Carolina; Florida State University.

Roger E. Parsell, M.A., (1958)
Instructor in English
B.A., Wabash College, Crawfordsville, Indiana; M.A., Butler University, Indianapolis, Indiana; University of Heidelberg, Germany; University of Illinois.

James E. Patterson, Ph.D., (1957) Associate Professor of Geography B.A., Michigan State University; A.M., Ph.D., University of Illinois; University of Tennessee.

Edwin A. Payne, M.Ed., (1952)
Assistant Professor of Psychology B.S. in Bus. Adm., B.S. in Ed., M.Ed., University of Missouri.

Henri R. Pearcy, Ph.D., (1940) Associate Professor of European History
A.B., University of Louisville; Th.D., Southern Baptist Seminary, Louisville; B.D., Presbyterian Seminary, Louisville; M.A., University of Louisville; Ph.D., University of Chicago.

Harlan W. Petthman, Ed.D., (1937)
Professor of Music
A.B., Central Wesleyan College, Warrenton, Missouri ; B.M.E., M.S. in Ed., Northwestera University; Ed.D., Teachers College, Columbia University; Williams Band and Orchestra School, Saugerties, New York; Internationale Mozarteum, Salzburg, Austria; University of Iowa; University of Illinois.

Shirley Perry, M.S.P.E., (1960) Instructor in Health and Physical Education B.S., Southern Illinois University; M.S.P.E., Woman's College, University of North Carolina.

Warren S. Perry, M.S., (1955)
Assistant Professor of Business Education B.Ed., Wisconsin State College, Whitewater; M.S., University of Wisconsin; University of Minnesota; University of Illinois; University of Colorado.

Margaret Katherine Peters, Ed.D., (1930) Professor of Business Education B.S., Indiana University; M.S., New York University; Ed.D., University of Colorado; University of Chicago; Cambridge University; University of Washington.

Wolfgang Pfabel, Jr., M.A., (1961)
Assistant Professor of German M.A., Western Reserve University; University of Wuerzburg, Germany.

Harold R. Phelps, Ph.D., (1958)
Professor of Education Director of the Division of Special Education B.S. in Ed., M.A., University of Nebraska; Ph.D., Ohio State University.

Frank N. Phmpot, Ed.D., (1959)
Professor of Education
Head of the Department of Education and Psychology
A.B., Athens College, Athens, Alabama; M.S., Alabama Polytechnic Institute; Ed.D., Columbia University; State Teachers College, Florence, Alabama; George Peabody College for Teachers.

Mark A. Plummer, Ph.D., (1960)
Assistant Professor of History B.S., M.S., Kansas State College, Pittsburg; Ph.D., University of Kansas; University of Missouri.

Olgert Pocs, M.A., (1960)
Instructor in Sociology
B.A., M.A., University of Illinois; Herzl Junior College.
B.S., Oklahoma State University; Ph.D., Indiana University; Eastern Oklahoma Agricultural and Mechanical College, Wilburton.

Vernon C. Pohlmann, Ph.D., (1955)
Professor of Sociology
A.B., M.A., Ph.D., Washington University; University of Chicago.

Charles B. Porter, Ed.D., (1961)
Professor of Industrial Arts Head of the Department of Industrial Arts B.S. in Ed., M.S. in Ed., Illinois State Normal University; Ed.D., University of Illinois.

Harry E. Preble, Ph.D., (1960) Assistant Professor of English B.A., M.A., Ph.D., University of Illinois.

Donald M. Prince, Ed.D., (1960)
Associate Professor of Education
B.S., Murray State College, Murray, Kentucky; M.S., Ed.D., University of Illinois; Illinois State Normal University.

Frances D. Prince, M.A., (1958)
Instructor and Supervising Teacher
Deaf and Hard of Hearing
B.A., The Rice Institute, Houston, Texas; M.L., The University of Houston; M.A., Teachers College, Columbia University.

Chrustine P'Simer, D.Ed., (1957) Assistant Dean of Women Associate Professor of Education A.B., Indiana University; M.A., Teachers College, Columbia University; D.Ed., Florida State University; Ball State Teachers College, Muncie, Indiana.

Perry N. Ragouzis, M.F.A., (1960)
Instructor in Art B.F.A., M.F.A., University of Illinois; Northern Illinois University; Michigan State University.

Taimi M. Ranta, M.Ed., (1959) Assistant Professor of English A.B., Northern Michigan College; M.Ed., Ohio University; University of Minnesota; Jyvaskyla Pedagogical College, Finland.

Robert S. Ravicz, Ph.D., (1961) Associate Professor of Anthropology A.B., University of Texas; M.A., Ph.D., Harvard University.
H. Earle Reese, Ed. D., (1958) Associate Professor of Business Education A.B., Oakland City College, Indiana; M.A., University of Illinois; Ed.D., George Peabody College for Teachers; Wabash College, Crawfordsville, Indiana; Indiana University; Ohio University; University of Minnesota.

Earl A. Rettan, Ph.D., (1954)
Associate Professor of History B.A., Concordia College; A.M., Ph.D., University of Illinois.

Hans-Dieter Renning, D.Ec., (1961) Assistant Professor of Economics
D.Ec., University of Freiburg/Breisgau, Germany; University of Hamburg, Germany; Indiana University.

Vernon L. Replogle, Ed.D., (1950)
Director of Metcalf School
Professor of Education
B.S., M.S., Ed.D., University of Illinois; Eastern Illinois University; Northwestern University.

Kenneth A. Retzer, M.Ed., (1959)
Assistant Professor of Mathematics
A.B., Illinois College; M.Ed., University of Illinois; University of Wyoming; Louisiana State University.

John L. Reusser, Ph.D., (1944)
Professor of Education
B.A., Upper Iowa University; M.A. in Ed., Ph.D., University of Iowa.
B.S., Southern Illinois University; M.A., Northwestern University; Illinois State Normal University; George Peabody College for Teachers.
E. Ione Rhymer, Ph.D., (1954) Professor of Bacteriology B.Ed., Illinois State Normal University; M.S., Ph.D., University of Illinois.

Doris M. Richards, M.S., (1951)
Assistant Professor of Speech
B.A., M.S., University of Michigan; Flint Junior College; University of Manchester, Manchester, England; Western Reserve University.

Lawrence G. Rickert, M.Mus., (1961) Assistant Professor of Music
B.Mus.Ed., Northwestern University; M.Mus., American Conservatory, Chicago; University of Illinois.

Lillie Mae Rickman, A.M., (1950)
Associate Director of Metcalf School
Assistant Professor of Education B.A., Mississippi State College for Women; A.M., University of Chicago; Wayne University; Teachers College, Columbia University.

Donald T. Ries, Ph.D., (1946)
Professor of Entomology B.S., Cornell University ; M.S., Michigan State University; Ph.D., Cornell University; University of Michigan.
R. Omar Rulett, Ph.D., (1958)

Professor of Biological Sciences Head of the Department of Biological Sciences B.A., M.A., University of Western Ontario; Ph.D., University of Wisconsin; London Normal School, London; Ontario College of Agriculture, Guelph; Ontario College of Art, Toronto; Pest Infestation Laboratories, Division of Scientific and Industrial Research, Slough, England.
T. E. Rine, Ph.D., (1941)

Professor of Mathematics B.Ed., Wisconsin State College, La Crosse; M.S., University of Iowa; Ph.D., George Peabody College for Teachers; Vanderbilt University.

Stanley G. Rives, M.S. in Ed., (1958)
Assistant Professor of Speech B.S. in Ed., M.S. in Ed., Illinois State Normal University; Northwestern University.
*James L. Roderick, M.M., (1956) Assistant Professor of Music B.M.E., M.M., Indiana University; University of Minnesota; Univeraity of Illinois.

Jose A. Rodriguez, Ph.D., (1961) Associate Professor of Spanish B.A.Sci., Instituto de la Habana, La Habana, Cuba; Ph.D., Universidad de la Habana, La Habana, Cuba.

Alma Bremer Rousey, A.M., (1950) Assistant Professor of Home Economics B.S.E., Arkansas State College; A.M., University of Illinois; Northwestern University; State University Teachers College, Plattsburgh, New York; Iowa State University.

James E. Rowe, M.S., (1959)
Assistant Professor of Mathematics B.S., Manchester College, North Manchester, Indiana; M.S., University of Illinols; Purdue University; Indiana University.

Mary A. Rozum, M.S. in Ed., (1950) Assistant Professor and Supervising Teacher in the Metcalf School B.S. in Ed., Illinois State Normal University; M.S. in Ed., University of Illinois; Indiana University; University of Wisconsin; University of Colorado.

Elizabeth Russell, M.A., (1935)
Assistant Professor of Education
A.B., University of Iowa; M.A., Teachers College, Columbia University; George Peabody College for Teachers.

[^22]Bernard L. Ryder, Ph.D., (1956)
Professor of Chemistry Head of the Department of Physical Sciences B.Ed., Illinois State Normal University; M.S., Ph.D., University of Illinois.

Howard H. Rye, Ed.D., (1957)
Professor of Music
Head of the Department of Music
B.F.A. in Music, B.F.A. in Music Ed., Carnegie Institute of Technology; M.A., Ed.D., Teachers College, Columbia University.

Barbara Samors, M.A., (1957) Instructor in Health and Physical Education B.S., Michigan State University; M.A., Western Michigan University; University of Michigan; Grand Rapids Junior College.

Irving W. Salowitz, M.D., (1958) Assistant Director of the University Health Service and Associate Professor
M.D., Chicago Medical School.

Herbert C. Sanders, M.M., (1949) Assistant Professor of Music B.M., Chicago Musical College; M.M., Northwestern University; American Conservatory of Music, Chicago; University of Chicago.

Theodore Sands, Ph.D., (1950)
B.A., Rutgers University ; M.A., Ph.D., University of Wisconsin.

Bobbie Nell Schmidt, M.Ed., (1961) Instructor in Health and Physical
Education
B.S., M.Ed., University of Texas.

Else A. Schmidt, Ph.D., (1958)
Assistant Professor of Geography
M.A., University of Leipzig, Germany; Ph.D., University of Munich, Germany; University of Vienna, Austria.

Luella E. Schultze, A.M., (1958) Instructor and Supervising Teacher in the Metcalf School B.S. in Ed., Illinois State Normal University; A.M., Colorado State College; University of Minnesota.

Evelyn L. Schurr, M.S., (1957) Instructor in Health and Physical Education B.S. in Ed., University of Michigan; M.S. in Ed., Purdue University; University of Illinois; State University of Iowa.

Jimmy D. Scott, M.S. in Ed., (1957)
Instructor in Health and Physical
Education
B.S., Carthage College; M.S. in Ed., Illinois State Normal University; University of Illinois; Indiana University.

Keith L. Scott, M.S.(Ed.), (1960) Instructor in Education Director of Men's Residence Halls

Resident Director of Dunn Hall
B.A., Carthage College; M.S.(Ed.), Western Illinois University; University of Colorado.

Thomas K. Searight, Ph.D., (1959) Assistant Professor of Geology A.B., M.A., University of Missouri; Ph.D., University of Illinois; Missouri School of Mines and Metallurgy.

Mary C. Serra, Ph.D., (1951)
Professor of Education
Director of Reading Laboratory B.S.E., State Teachers College, Westfield, Massachusetts; M.A., Teachers College, Columbia University; Ph.D., Temple University; New York University.

Frank E. Sharkey, Jr., M.A., (1957)
Instructor in Industrial Arts B.S., M.A., Ball State Teachers College, Muncie, Indiana; Indiana University; University of Illinois; Columbia University.

Grace Rebecca Shea, M.A., (1927) Assistant Professor and Nurse, Laboratory
Schools
R.N., Benjamin Bailey Sanitarium; B.S., Nebraska Wesleyan University; M.A., Teachers College, Columbia University; Illinois State Normal University; University of Nebraska.

Alice Sheveland, M.A. in Ed., (1942)
Assistant Professor and Supervising
Teacher in the Metcalf School
B.Ed., M.A. in Ed., Northwestern University; Northern Illinois University; University of Illinois.

Stanley B. Shuman, Ph.D., (1960) Assistant Professor of Geography B.S.Ed., M.A., Ohio State University; Ph.D., University of Illinois.

Barbara L. Simon, M.S. in L.S., (1959) Instructor and Assistant Librarian B.A., Rosary College; M.S. in L.S., Library School, University of Wisconsin.

Gwen Smith, Ph.D., (1946) Professor of Health and Physical Education B.S., M.S., Southwest Texas State College; Ph.D., University of Iowa.

Nelson Smith, M.S. in Ed., (1946)
Director of Photographic Services
Assistant Professor of Education B.S. in Ed., M.S. in Ed., Illinois State Normal University; Indiana University.

Ralph L. Smith, Ph.D., (1959) Associate Professor of Speech
Director of Radio and Television Programs
B.S., College for Teachers, Buffalo, New York; M.A., State University of Iowa; Ph.D., University of Wisconsin.

Richard J. Smith, Ed.D., (1955)
Assistant Professor
Director of Student Financial Aids B.S. in Ed., M.S., Western Illinois University; Ed.D., University of Colorado.

Eric W. Smithner, M.A., (1961)
Assistant Professor of French A.B., Muskingum College, New Concord, Ohio; M.A., New York University; University of Cincinnati, Ohio; Middlebury College, Middlebury, Vermont; Universite de Grenoble, Grenoble, France.

George A. Soderberg, Ph.D., (1959)
Associate Professor of Speech B.A., Central Michigan University; M.A., Ph.D., Ohio State University.

Marilyn K. Soderberg, M.A., (1961)
Instructor in Speech B.A., Central Michigan University; M.A., Ohio State University.

Dorothy Odell Soellner, A.M., (1955) Assistant Professor of English A.B., Denison University; A.M., University of Chicago; University of Illinois.

Clarence W. Sorensen, Ph.D., (1949)
Dean of the Graduate School
Professor of Geography
A.M., Ph.D., University of Chicago; University of Nebraska; Wheaton College; University of Mexico.

Irwin Spector, Ph.D., (1948)
Professor of Music
B.S., New Jersey State Teachers College, Trenton; M.A., Teachers College, Columbia University; Ph.D., New York University; Diploms, Conservatoire Nationsl de Musique, Paris, France; University of Paris; Rutgers University.

Eunice H. Speer, M.S., (1944)
Assistant Professor and Assistant Librarian
B.S., Kansas State Teachers College, Emporia; B.S. in L.S., University of Illinois Library

School; M.S., University of Illinois.
Jack Stahl, M.A., (1960)
Instructor in Music
B.S., Juilliard School of Music ; M.A., Teachers College, Columbia University; City College of New York.

Research Associate Professor of Aquatic Biology B.S., M.S., University of Illinois; Ph.D., Iowa State University; Illinois Natural History Survey.
J. Russell Steele, M.S. in Ed., (1947)

Assistant in Publicity Assistant Professor of Health
and Physical Education B.S. in Ed., M.s. in Ed., Illinois State Normal University; New York University; University of Wisconsin.

Ethel Gertrude Stein, M.A., (1944) Assistant Professor and Supervising Teacher in the Metcalf School B.Ed., Northern Illinois University; M.A., Northwestern University; University of Illinois.
C. Louis Steinburg, M.S. in Ed., (1959)

Instructor in Art
B.S. in Ed., M.S. in Ed., Southern Illinois University.

Harry E. Stiver, Jr., Ph.D., (1961)
Associate Professor of Speech Director of University Theatre A.B., Hastings College, Hastings, Nebraska; M.A., University of Nebraska; Ph.D., University of Illinois; Stanford University.

Alma Stoddard, M.P.E., (1961) Instructor in Health and Physical Education A.B., Nebraska Wesleyan University; M.P.E., University of Nebraska.
*Ruth Stroud, M.S., (1930) Assistant Professor of the Teaching of English B.S., M.S., University of Illinois; James Millikin University; Southern Illinois University; University of Southern California; Bread Loaf School of English, Middlebury, Vermont.

Edwin G. Struck, M.S., (1935)
Assistant Professor of Health and Physical Education A.B., DePauw University; M.S., Indiana University; University of Missouri; University of Illinois.

David E. Sweet, M.A., (1960)
Instructor in Political Science
A.B., Drury College, Springfield, Missouri; M.A., Duke University, Durham, North Carolina.

Thalla Jane Tarrant, A.M., (1935) Assistant Professor of History B.S., A.M., University of Missouri; Southwest Missouri State College; University of Illinois; University of Chicago.

Lucy Lucile Tasher, Ph.D., (1935)
Professor of History Ph.B., J.D., A.M., Ph.D., University of Chicago; University of Southern California.

Vivian Tasker, M.A., (1960)
Assistant Professor and Supervising
Teacher of the Deaf and Hard of Hearing B.A., Asbury College, Wilmore, Kentucky; M.A., Northwestern University; University of Illinois.

Glenn J. Taylor, Ph.D., (1950)
Professor of Speech
Director of Hearing Laboratory
B.Ed., Illinois State Normal University; M.A., University of Iowa; Ph.D., University of Southern California.

Donald F. Templeton, M.A., (1950)
B.A., Iowa State Teachers College; M.A., University of Iowa
*Leave of absence, second semester, 1961-1962.

Isabelle Terrill, A.M., (1949)
Director of Housing
Assistant Professor
A.B., Knox College; Mus. B., Knox Conservatory of Music; A.M., Teachers College, Columbia University; Chicago Conservatory of Music; Institute of Musical Art, New York City; DePaul University; University of Wisconsin; University of Illinois.

John B. Terwilliger, M.M., (1957)
Assistant Professor of Music
B.M., M.M., Westminster Choir College; Muskingum College; Teachers College, Columbia University.

Herman R. Tiedeman, Ph.D., (1946) Professor of Psychology Director of Test Service B.Ed., Minnesota State College, Winona; M.A., Ph.D., State University of Iowa.

Lewis R. Toll, Ed.D., (1947)
Professor of Business Education Head of the Department of Business Education B.s., M.s., University of Iminois; Ed.D., New York University; University of Southern California; Oregon State College.

Mary Comfort Towle, M.A., (1961)
Instructor in Education
Resident Director of Whitten Hall B.A., Washington University; M.A., Teachers College Columbia University; Northwestern University; University of Missouri; University of Michigan.

John E. Trotter, Ph.D., (1956)
Assistant Professor of Geography S.M., Ph.D., University of Chicago; Joliet Junior College.

Wayne O. Truex, M.S., (1957) Instructor in Health and Physical Education B.S., M.S., Indiana University; University of Colorado.

Duff Tucker, III, M.A., (1961) Instructor in Sociology B.A., The College of Wooster, Wooster, Ohio; M.A., Kent State University, Ohio.

Raymond W. Tudor, M.A., (1948)
Assistant Professor of English B.J., B.S. in Ed., University of Missouri ; M.A., University of Michigan; University of Kansas; University of Illinois.
Sadie Bernette Udstuen, M.A., (1950) Assistant Professor and Supervising
Teacher in the Metcalf School B.Ed., Northern Illinois University; M.A., Northwestern University; University of MichIgan; University of Chicago.
Charlotte M. Upton, M.S. in Ed., (1958) Instructor in Home Economics B.S., University of Illinois; M.S. in Ed., Illinois State Normal University.

Arden L. Vance, M.M., (1949)
Director of Bands
Assistant Professor of Music B.M.E., Chicago Conservatory of Music; M.M., Northwestern University; Lewis Institute, Chicago; DePaul University; University of Illinois; University of Iowa.

Dale B. Vetter, Ph.D., (1941)
Professor of English
A.B., North Central College; M.A., Ph.D., Northwestern University; University of Chicago.

Francis M. Wade, M.A., (1947)
Director of Alumni Services
and Assistant Professor
B.s., Bradley University; M.A., University of Washington; Illinois State Normal Univer sity; University of Wisconsin; University of Michigan.

Morton D. Warmon, Ed.D., (1961)
Associate Professor of Education B.S., M.A., New York University; Ed.D., Teachers College, Columbia University.

Lysbeth Wallace, M.F.A., (1962)
Assistant Professor of Art
A.B., University of Kentucky; M.F.A., Kansas City Art Institute, Kansas City, Missouri; M.F.A., Cranbrook Academy of Art, Bloomfield Hills, Michigan.

Ronald D. Ware, Ph.D., (1961)
Assistant Professor of History
B.A., University of Cincinnati, Ohio; M.S., Ph.D., University of Wisconsin.

George P. Warren, Jr., M.S., (1960) Instructor in Physical Sciences
B.S. in Ed., M.S., Western Illinois University; Bradley University; University of Illinois.

Arthur Weldon Watterson, Ph.D., (1946)
Professor of Geography Head of the Department of Geography B.Ed., IUinois State Normal University; S.M., Ph.D., University of Chicago; Blackburn College.

Robert D. Weigel, Ph.D., (1959) Associate Professor of Vertebrate
Zoology and Paleontology B.A., M.A., University of Buffalo; Ph.D., University of Florida.

Ida G. Weiser, M.S., (1959) Instructor and Supervising Teacher in the Kindergarten
B.S., Douglass College, Rutgers University; M.S., Florida State University.

John H. Wesle, M.A., (1952)
Assistant Professor of Art
B.S., University of Wisconsin, Milwaukee; M.A., Western Reserve University; New School for Social Research, New York City; University of Southern California; Cleveland School of Art; Summer School of Painting, Saugatuck, Michigan; University of Wisconsin.
*Margaret Mary Westhoff, M.S., (1933)
Assistant Professor of Music B.Ed., Illinois State Normal University; M.S., Northwestern University; Teachers College, Columbia University; Arnerican Conservatory of Music, Chicago; University of Illinois.

David L. Wheeler, Ph.D., (1961) Assistant Professor of Geography A.B., A.M., Ph.D., University of Michigan.

Harriet R. Wheeler, M.A., (1946) Assistant Professor of Business Education B.A., Augustana College; M.A., University of Iowa; Cornell College; Gregg College; University of Illinois; Indiana University.

Charles A. White, Ph.D., (1957)
Professor of Speech
Head of the Department of Speech
B.A., Muskingum College; M.A., Northwestern University; Ph.D., University of Wisconsin.

William V. White, M.S. in Ed., (1934) Director of University Press
Instructor in Industrial Arts
B.Ed., M.S. in. Ed., Illinois State Normal University; University of Illinois; University of Houston.

Robert R. Whited, M.S., (1958)
Instructor in Music
B.S., M.S., University of Illinois; Tri State College, Angola, Indiana; U.S.N. School of Music, Washington, D.C.

## E. Gwendolyn Williams, M.A., (1956)

Instructor in English
A.B., University of Illinois; M.A., Bread Loaf School of English, Middlebury College, Middlebury, Vermont; Illinois Wesleyan University; Washington University.

Thomas D. Wilson, M.A., (1961)
Instructor in Political Science B.S. in Ed., Illinois State Normal University; M.A., University of Illinois.

[^23]B.Ed., Illinois State Normal University; A.M., University of Chicago; University of Colorado; University of Illinois.
*Vermell Wise, M.A., (1948) Assistant Professor of English A.B., Centre College; M.A., Teachers College, Columbia University; University of Kentucky; University of Illinois.

Stanley G. Wold, Ph.D., (1961)
Associate Professor of Art
B.S., M.Ed., Ph.D., University of Minnesota.

David C. Wood, M.A., (1961) Instructor in English
B.S., Wisconsin State College, Eau Claire; M.A., Bowling Green State University, Ohio.

Harvey S. Woods, Ph.D., (1957)
Professor of Agriculture Head of the Department of Agriculture B.S., M.s., Ph.D., University of Illinois; Southern Illinois University.

Betry Woodson, M.A., (1957) Instructor and Supervising Teacher Older Physically Handicapped Ph.B., Northwestern University; M.A., Wayne University; Rockford College; Michigan State University.

Ethel Wooley, M.A., (1957)
Instructor in Education
B.S., M.A., George Peabody College for Teachers; Southern Illinois University; Bradley University; University of Illinois.

Donna Jo Workman, M.A., (1959) Instructor in Health and Physical Education
B.A., State University of Iowa; M.A., University of Michigan; Cornell College, Mt. Vernon, Iowa; University of Illinois.

Ruth V. Yates, M.A., (1935)
Assistant Professor of Speech
B.A., Cornell College; M.A., Teachers College, Columbia University; Phidelah Rice School of Speech, Boston; University of Iows; University of Wisconsin; University of Southern California.

Lyle M. Young, Ed.D., (1952)
Associate Professor of Music
B.Ed., Illinois State Normal University; M.A., Ed.D., Columbia University.

Orville L. Young, Ph.D., (1939) Professor of Agriculture
B.S., Purdue University; M.S., Ohio State University; Ph.D., The Pennsylvania State University; Cornell University.

Ruth Zimmerman, M.A., (1935) Assistant Professor and Assistant Librarian
B.S., Kansas State Teachers College, Emporia; M.A., University of Minnesota; Harvard University; University of Zürich, Switzerland.

## FACULTY AND ADMINISTRATIVE ASSISTANTS

Mary Browne, A.B., (1957)
Assistant in Kindergarten
A.B., Lawrence College, Appleton, Wisconsin; Illinois State Normal University.

Elsie Bryan, B.S. in Ed., (1960)
Assistant in Home Economics
B.S. in Ed., Illinois State Normal University ; The Merrill Palmer School, Detroit, Michigan.

[^24]Katherine A. Carsey, B.S. in Ed., (1961)
Assistant in Health and Physical
Education
B.S. in Ed., University of Omaha, Nebraska.

Phyllis G. Day, (1959)
Resident Assistant, Fell Hall
Tulsa University; University of Oklahoma.
Germaine E. Feldkamp, (1960) Assistant Resident Director of Walker Hall Chicago College of Music; Northwestern School of Speech; University of Illinois

Candace Helgeson, B.S., (1958) Assistant in English B.S., Wisconsin State College, LaCrosse; University of Illinois; University of Wisconsin.

John W. Hinds, M.S. in Ed., (1961) Director of Conference Planning B.S. in Ed., M.S. in Ed., Illinois State Normal University.

Bernice Holliday, B.Ed., (1957) Resident Director of Walker Hall B.Ed., Western Illinois University.
J. Rudolph Johnson, M.S., (1961)

Assistant in Library Science
B.S., Cuttington College and Divinity School, Liberia; M.S., University of Illinois.

Helen Keeley, B.A., (1954)
Assistant in the Library B.A., Nebraska Wesleyan University; University of California.

Marian E. Kron, B.S. in Ed., (1960)
Assistant in Mathematics
B.S. in Ed., Illinois State Normal University; Valparaiso University.

Marilyn Kay Lewis, B.S., (1961) Assistant in Health and Physical Education B.S., Texas Woman's University.

Vesta Myrick, A.B., (1960) Assistant Resident Director of Whitten Hall A.B., Florida Southern College, Lakeland; University of Florida; University of Illinois.

Mary A. Nobiling, B.Ed., (1960)
Assistant in Education B.Ed., Illinois State Normal University.

Mary Scott, (1960)
Assistant Resident Director of Dunn Hall Knox College.

Harriet G. Vissering, A.B., (1952) Assistant Resident Director of Hamilton Hall A.A., William Woods College, Missouri; A.B., Washington University; College of Missions, Indianapolis, Indiana.

John P. Wolter, B.S. in Ed., (1960) Assistant Director of Off-Campus Housing B.S. in Ed., Illinois State Normal University.

## THE FACULTY EMERITI

Howard William Adams, S.M., (1909) Professor of Physical Sciences (Emeritus) B.S., Iowa State College; S.M., University of Chicago; Illinois Institute of Tochnology; University of Illinois.

Marion Campbell Allen, M.A., (1927) Assistant Professor of Art (Emerita) B.A.E., Chicago Art Institute; M.A., Teachers College, Columbia University; Pratt Institute; Chicago Academy of Fine Arts; University of Chicago; University of Illinois; Art Colony, Woodstock, New York.

Gladys L. Bartle, Ph.D., (1930) Associate Professor of Art (Emerita) B.S., M.S., Ph.D., University of Wisconsin; International School of Art; Chicago Academy of Fine Arts.

Paul K. Benjamin, M.S., (1950)
Instructor in Health and Physical
Education (Emeritus)
B.S., University of Illinois; M.S., University of Washington; Illinois State Normal University.

Elsie Brenneman, M.A., (1927)
Director of Admissions and Assistant Professor of Education (Emerita) B.Ed., Illinois State Normal University; M.A., Northwestern University.

Dorothy Garrett Brunk, M.A., (1925) Assistant Professor of History (Emerita)
B.Ed., Illinois State Normal University; M.A., Teachers College, Columbia University; University of Illinois.

Mary Elizabeth Buell, M.A., (1926) Assistant Professor of Home Economics
(Emerita)
Ph.B., University of Chicago; M.A., Teachers College, Columbia University; University of Illinois; University of California.

John Wesley Carrington, Ph.D., (1933)
Director of Laboratory School
Experiences and Professor of Education (Emeritus)
B.S., A.M., University of Illinois; Ph.D., Northwestern University; Illinois State Normal University.
*Edward LeRoy Cole, Ed.D., (1931) Professor of Education (Emeritus) A.B., A.M., University of Michigan; Ed.D., University of California; Michigan State Normal College.

Frances Conkey, M.S., (1936) Associate Professor of Home Economics (Emerita) B.S., James Millikin University; B.S., University of Illinois; M.S., Iowa State University; Teachers College, Columbis University; Ohio State University.

Marguerite Regina Connell, Ed.D., (1928) Professor of Latin (Emerita) B.Ed., Illinois State Normal University; A.M., University of Illinois; Ed.D., Teachers College, Columbia University; University of Chicago; University of Colorado.

Margaret Cooper, Ed.D., (1932)
Professor of Education (Emerita) B.A., Carleton College; M.A., Ed.D., Teachers College, Columbia University; State Teachera College, Mankato, Minnesota.

Mabel Percie Crompton, S.M., (1924)
Assistant Professor of Geography (Emerita)
B.Ed., Illinois State Normal University; S.M., University of Chicago.

Alta J. Day, M.A., (1928) Assistant Professor of Business Education (Emerita) B.A., Lawrence College; M.A., Teachers College, Columbis University; University of California; Gregg College.

Chris A. DeYoung, Ph.D., LL.D., Lit.D., (1934) Professor of Education (Emeritus) A.B., Hope College; M.A., Teachers College, Columbia University; Ph.D., Northwestern University; LL.D., Lincoln College; Lit.D., Hope College.

Helen A. Dooley, M.A., (1947)
Assistant Professor and Assistant Librarian (Emerita) A.B., Illinois Wesleyan University; B.S., School of Library Service, Columbia University; M.A., University of Washington; University of Chicago.

Alva W. Dragoo, M.S., (1919) Assistant Professor of Industrial Arts (Emeritus) B.Ed., Illinois State Normal University; M.S., Iowa State College; Eastern Illinois University; University of Wisconsin.

[^25]Lura M. Eyestone, B.S., (1901) Instructor and Supervising Teacher (Emerita) B.s., Teachers College, Columbia University; Illinois State Normal University; University of Chicago; Northwestern University.
F. Russell Glasener, Ph.D., (1935) Professor of Economics (Emeritus)
B.A., Iowa State Teachers College; M.A., Ph.D., State University of Iowa.

Floyd Tomplins Goodier, M.A., (1935) Associate Professor of Education
(Emeritus)
A.B., Colgate University; M.A., Teachers College, Columbia University; University of Ohieago.

Linder W. Hacker, M.A., (1925) Associate Professor of Education (Emeritus) B.Ed., Illinois State Normal University; M.A., State University of Iowa; Teachers College, Columbia University; University of Illinois.

Alma Many Hamblon, M.A., (1915) Assistant Professor of the Teaching of English (Emerita) B.S., Illinois Wesleyan University; B.Ed., Illinois State Normal University; M.A., Teachers Collegr, Columbia University.

Wezette A. Hayden, M.A., (1921) Assistant Professor and Supervising Teacher in the First Grade (Emerita) Ph.B., University of Chicago; M.A., Teachers College, Columbia University; Southern Illinois University; University of Illinois.

Dorothy Hinman, M.A., (1925) Assistant Professor of English (Emerita) B.A., University of Wisconsin; M.A., Teachers College, Columbia University; Oxford University; University of Illinois; Louisiana State University.
F. Lincoln D. Holmes, Ph.D., (1935)

Professor of Speech (Emeritus) A.B., University of Minnesota; A.M., Ph.D., University of Wisconsin; State University of Iowa; University of Paris.

Clifford Emory Horton, Ed.D., (1923) Professor of Health and Physical Education (Emeritus) B.P.E., Springfield Y.M.C.A. College; A.M., Clark University; Ed.D., Indiana University; University of California; New York University.

Clyde Whittarer Hudelson, M.S., (1920) Associate Professor of Agriculture (Emeritus) B.S., M.S., University of Illinois; Western Illinois University; Illinois State Normal University; Colorado State Agricultural College.

Christine P. Ingram, Ed.D., (1949) Professor of Education (Emerita) B.S., A.M, Columbia University; Ed.D., New York University; University of California.

Emma R. Knudson, Ph.D., (1934)
Professor of Music (Emerita)
B.M., American Conservatory of Music; B.S. in Ed., Drake University; M.S. in Ed., Ph.D., Northwestern University; Jewell Lutheran College; Bush Conservatory of Music; Teachers College, Columbia University; University of Chicago; University of Illinois.

Ernest M. R. Lamkey, Ph.D., (1927) Professor of Biological Sciences (Emeritus) A.B., A.M., Ph.D., University of Illinois.

Thomas Jesse Lancaster, A.M., (1919) Associate Professor of Education (Emeritus)
B.Ed., Illinois State Normal University; A.M., University of Chicago; University of Illinois.

Ralph Harlan Linkins, A.M., (1917)
Dean of Men and
Associate Professor of Biological Sciences (Emeritus)
A.B., Illinois College; A.M., University of Illinois.

Blanche McAvoy, Ph.D., (1926) Professor of the Teaching of Biological Sciences
(Emerita)
B.A., University of Cincinnati; A.M., Ohio State University; Ph.D., University of Chicago.

Neva Mc Davitt, A.M., (1929) Assistant Professor of Geography (Emerita)
B.Ed., Illinois State Normal University; A.M., Clark University; Teachers College, Columbia University; University of Wisconsin; University of Illinois.

Dorothy M. McEvoy, M.A., (1950) Assistant Professor and Supervising Teacher
(Emerita)
B.S. in Ed., University of Nebraska; M.A., Teachers College, Columbia University; Iowa State Teachers College; University of California; Western Pennsylvania School for Deaf; University of Illinois.

Ferne Melrose, B.Ed., (1928)
Recorder (Emerita)
B.Ed., Illinois State Normal University.

Clifford Newton Mills, Ph.D., (1925)
Professor of Mathematics (Emeritus)
B.S., Franklin College; A.M., Indiana University; Ph.D., University of Wisconsin; University of Michigan.

Gerda Okerlund, Ph.D., (1931)
Professor of English (Emerita) A.B., A.M., Ph.D., University of Washington; University of California; University of Michigan; Stanford University; University of Chicago.

Rose Etoile Parker, Ph.D., (1931)
Professor of Education (Emerita) B.A., University of North Dakota; A.M., University of Chicago; Ph.D., University of Wisconsin.

Gertrude Andrews Plotnicky, (1913)
Assistant Librarian (Emerita) Chicago Public Library Training School; University of Wisconsin.

Genevieve Anva Pohle, M.A., (1923) Assistant Professor and Assistant Librarian (Emerita) A.B., University of Wisconsin; M.A., Graduate Library School, University of Michigan; Library School, University of Wisconsin; Graduate Library School, University of Chicago.

Laura Hayes Prucer, Ph.M., (1911) Associate Professor of English (Emerita) B.S., Vanderbilt University; Ph.M., University of Chicago; University of Iowa.
*Agnes Fraser Ruce, M.A., (1927) Associate Professor of Education (Emerita) Ph.B., University of Chicago; M.A., Teachers College, Columbia University; State Teachers College, Mankato, Minnesota.

Josephine Ross, M.A., (1926) Assistant Professor of Home Economics (Emerita) B.S., MacMurray College; M.A., Teachers College, Columbia University; University of Colorado; University of Chicago; Oregon State Agricultural College; University of Wisconsin.

Bertha May Royce, Ph.D., (1925) Professor of Biological Sciences (Emerita) B.A., Wellesley College; M.A., Columbia University; Ph.D., University of Washington; University of Illinois; North Central College.

Leon Sheldon Smith, A.M., (1925) Assistant Professor of Physical Sciences (Emeritus)
A.B., Albion College; A.M., University of Michigan; University of Paris; University of Iowa; University of Chicago.

Fred S. Sorrenson, Ph.D., (1920)
Professor of Speech (Emeritus)
A.B., Mount Morris College; B.E., M.E., Columbia College; A.M., Ph.D., University of Michigan; Central Michigan University; Teachers College, Columbia University; Harvard University; Northwestern University; University of Chicago.

[^26]Ray M. Stombaugh, Ph.D., (1935) Professor of Industrial Arts (Emeritus) B.S., Stout State College; M.A., Ph.D., Teachers College, Columbia University; University of Michigan; Western Michigan College of Education; Central Michigan College of Education.

Florence Evelyn Teager, Ph.D., (1931) Professor of English (Emerita) B.A., M.A., Ph.D., University of Iowa; University of Chicago.

Mary Dorothy Webb, M.A., (1930) Assistant Professor of the Teaching of Business Education (Emerita) B.A., Lawrence College; M.A., University of Wisconsin; University of Chicago; Teachers College, Columbia University.

Eleanor Weir Welch, M.S., (1929) Director of Libraries and Associate Professor (Emerita) A.B., Monmouth College; M.S., School of Library Service, Columbia University; Library School, University of the State of New York.

Jennie Alma Whitten, Ph.D., (1919) Professor of Foreign Languages (Emerita) A.B., A.M., University of Illinois; Ph.D., University of Wisconsin; Northern Illinois University; University of Grenoble; University of Chicago.

## Student Enrollment

## ON CAMPUS

SECOND SEMESTER 1960-61

|  | Men | Women | Total |
| :---: | :---: | :---: | :---: |
| Freshman | 516 | 980 | 1496 |
| Sophomore | 329 | 494 | 823 |
| Junior | 275 | 426 | 701 |
| Senior | 319 | 419 | 738 |
| Unclassified (Undergraduate) | 28 | 34 | 62 |
| Special (Undergraduate) | 11 | 5 | 16 |
| Graduate | 225 | 144 | 369 |
| Total | 1703 | 2502 | 4205 |
| SUMMER 1961 |  |  |  |
| Eight-Week Session | 1039 | 1299 | 2338 |
| Short Sessions (Including Duplicates) | 122 | 830 | 952 |
| Post Session | 293 | 287 | 580 |
| FIRST SEMESTER 1961-62 |  |  |  |
| Freshman | 715 | 1243 | 1958 |
| Sophomore | 382 | 729 | 1111 |
| Junior | 308 | 480 | 788 |
| Senior | 314 | 473 | 787 |
| Unclassified (Undergraduate) | 12 | 43 | 55 |
| Special (Undergraduate) | 36 | 88 | 124 |
| Graduate | 238 | 157 | 395 |
| Total . . | 2005 | 3213 | 5218 |

## EXTENSION

Second Semester 1960-61 ..... 102 ..... 476 ..... 578
Summer 1961 ..... 15 ..... 352 ..... 367
First Semester 1961-62 ..... 67
412 ..... 479

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[^0]:    *For 1963-64, a fee of approximately $\$ 9$ for recreational facilities will be added.
    **The charge for 1961-62. See details on page 14.

[^1]:    * Not required for Speech Correction.

[^2]:    * Each student must complete at least six semester hours in art and music. Part of this may be completed in General Education, Group I,

[^3]:    * A comprehensive field is offered, in addition to first and second fields.
    ** Only second field is offered.

[^4]:    * A comprehensive field is offered, in addition to first and second fields.
    ** Only second field is offered.

[^5]:    * Students who have had some training in typewriting and shorthand in high school or private school may be excused, upon consultation with the Head of the Department, from one or more of the following courses: $112,113,122$, and 123. The minimum requirement for teaching shorthand or typewriting is six semester hours in the subject and sixteen semester hours in the field.

[^6]:    * Students who have had some training in typewriting and shorthand in high school or private school may be excused, upon consultation with the Head of the Department, from one or more of the following courses: $112,113,122$, and 123 . The minimum requirement for teaching shorthand or typewriting is six semester hours in the subject and sixteen semester hours in the field.

[^7]:    254 European Literature, 1700 to 18503 sem. hrs.
    Main movements of Continental European literature from the Renaissance to modern times. Readings in translation.

[^8]:    Economic activities of man in their regional assooiations. Production and distribution of leading commodities. Chief routes of trade and transportation as related to areas of production and markets.

[^9]:    Head of the Department: Howard H. Rye. Office: Centennial Building, East 155B.

[^10]:    * Six semester hours of workshop credit is the maximum which may be applied toward graduation.

[^11]:    * Leave of absence in 1961-1962 school year.

[^12]:    * Leave of absence, first semester, 1961-1962.

[^13]:    *Leave of absence, second semester, 1961-1962.

[^14]:    *Leave of absence, second semester, 1961-1962.

[^15]:    * Leave of absence, first semester, 1961-1962.

[^16]:    * Leave of absence in 1961-1962 school year.

[^17]:    * Leave of absence in 1961-1962 school year.

[^18]:    *Leave of absence, second semester, 1961-1962.

[^19]:    * Leave of absence in 1961-1962 school year.

[^20]:    * Leave of absence in 1961-1962 school year.

[^21]:    * Leave of absence in 1961-1962 school year.

[^22]:    * Leave of absence in 1961-1962 school year.

[^23]:    * Leave of absence in 1961-1962 school year.

[^24]:    * Leave of absence in 1961-1962 school year.

[^25]:    * Deceased, May, 1961.

[^26]:    * Deceased, June 16, 1961.

